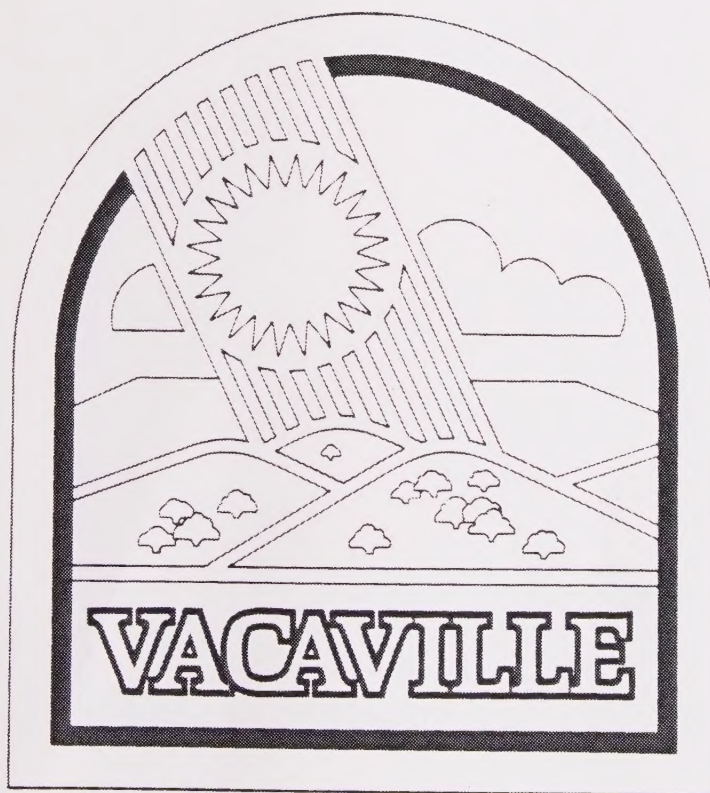



Vacaville General Plan

Volume One: Plan Policies



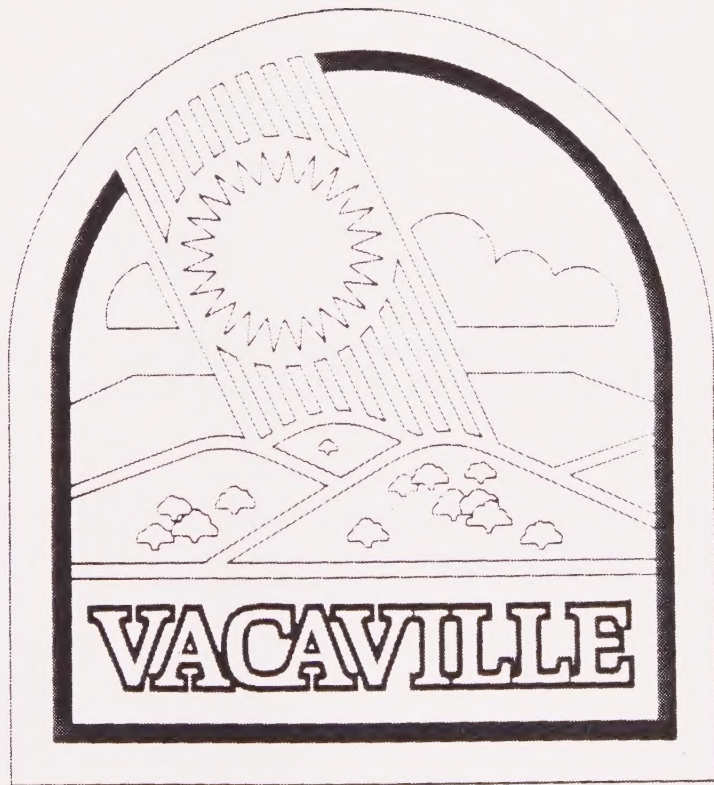
Adopted by the City Council
August, 1990



Digitized by the Internet Archive
in 2025 with funding from
State of California and California State Library

<https://archive.org/details/C124910805>

Vacaville General Plan



VACAVILLE GENERAL PLAN

DOCUMENT PRICE LIST

	Document Price	Document Price if mailed
✓ Volume 1* (Plan Policies)	\$20.00	\$22.50
✓ Volume 2 (Housing Element)	\$4.00	\$5.00
Volumes 3 and 4 (Draft Environmental Impact Report; Comments on Draft E.I.R., and Response to Comments)	\$20.00	\$22.50
Land Use Diagram	\$2.00	\$2.00
Land Use Diagram - Large Blueprint	\$5.00	\$5.50
Volumes 1*, 2, 3 and 4	\$44.00	\$50.00

* Volume 1 includes a copy of the Land Use Diagram, and a summary of the policies contained in the Housing element (Volume 2)

Copies may be examined and/or purchased at the Planning Division offices in Vacaville City Hall, 650 Merchant Street. Orders for copies to be mailed should be sent to;

City of Vacaville
Planning Division
650 Merchant Street
Vacaville, CA 95688

Orders should specify which volume(s) are desired, and must be accompanied by a check for the full amount, made out to the City of Vacaville. Further information may be obtained by calling Senior Planner Maureen Traut or Associate Planner Robert Macaulay at (707) 449-5140.

CITY OF VACAVILLE GENERAL PLAN

Volume One: Plan Policies

*Adopted on August 21, 1990; amended by
Resolution 1990-G-8 on October 16, 1990*

CITY MANAGER

John P. Thompson

PROJECT STAFF

Gregory J. Werner, Director of Community Development

PLANNING SERVICES DIVISION PROJECT STAFF

Maureen Traut, Senior Planner, Project Manager

Robert Macaulay, Assistant Planner

Debbie Wilson, Typist Clerk II

PLANNING SERVICES DIVISION

Scott Sexton, City Planner

Karen Moore, Senior Planner

Dave Hubbell, Planning Project Manager

Sean Trippi, Associate Planner

Fred Buder, Associate Planner

John McDowell, Assistant Planner

Sean Trippi, Associate Planner

CONTRIBUTING DEPARTMENTS

John P. Thompson, City Manager, and staff

Gregory J. Werner, Director of Community Development, and staff

Dale Pfeiffer, Director of Public Works, and staff

Ron Mikalis, Director of Community Services, and staff

Gary Tatum, Chief of Police, and staff

Bob Powell, Fire Chief, and staff

Terry Wohlford, Finance Director, and staff

Chuck Lamoree, City Attorney

CONSULTANTS

Blayney Dyett Greenberg, Urban and Regional Planners

Brown & Caldwell, Consulting Engineers

Camp Dresser & McKee, Environmental Engineers

Charles M. Salter Associates, Acoustical Engineers

Nolte & Associates, Engineers

TJKM, Transportation Consultants

TABLE OF CONTENTS

Chapter/Page

1	Introduction	
1.1	Development History and Future Prospects	1-1
1.2	Nature and function of the General Plan	1-2
1.3	The Vacaville Planning Area	1-4
1.4	Using the Plan	1-5
1.5	Public Participation	1-7
1.6	General Plan Revision Process	1-8
2	Land Use Element	
2.1	Community Form and Image	2-1
2.2	Growth Strategy	2-6
2.3	Special Area Policies	2-12
2.4	Land Use Classifications	2-18
2.5	Residential Areas	2-26
2.6	Retailing and Commercial Services	2-32
2.7	Offices	2-37
2.8	Business and Industrial Park Development	2-38
2.9	Other Land Uses	2-41
3	Open Space Element	
3.1	Open Space for the Preservation of Natural Resources	3-1
3.2	Open Space for the Managed Production of Resources	3-2
3.3	Open Space for Outdoor Recreation	3-2
3.4	Open Space for Public Health and Safety	3-3
3.5	Open Space Policies	3-3
4	Parks and Recreation Element	
4.1	Inventory and Classification	4-1
4.2	Standards	4-5
4.3	Park Funding	4-6
4.4	Future Needs	4-6
4.5	Parks, Recreation and Open Space Master Plan	4-14
4.6	Park and Recreation Policies	4-14

5	Public Facilities, Institutions and Utilities Element	
5.1	Utilities and Public Services	5-1
5.2	Community Services, Cultural Facilities and Historic Resources	5-7
5.3	Schools	5-9
6	Transportation Element	
6.1	Standards for Traffic Service and Street Improvements	6-2
6.2	Freeways and Arterial Roadways	6-7
6.3	Collector and Local Roadways	6-9
6.4	Transportation Systems Management	6-10
6.5	Bikeways and Pedestrian Paths	6-12
6.6	Airports	6-15
7	Housing Element Summary	
7.1	Construction and Acquisition	7-8
7.2	Rehabilitation and Conservation	7-13
7.3	Household Assistance	7-15
7.4	Program Evaluation	7-18
8	Conservation Element	
8.1	Creeks and Watershed Protection	8-1
8.2	Wildlife and Vegetation	8-2
8.3	Air Quality	8-4
8.4	Water Conservation	8-6
8.5	Historic and Archaeologic Resources	8-7
9	Safety Element	
9.1	Geologic and Seismic Hazards	9-1
9.2	Flooding and Storm Drainage	9-4
9.3	Wildland and Urban Fires	9-9
9.4	Hazardous Materials	9-10
9.5	Disasters	9-11
10	Noise Element	
10.1	Existing and Future Noise Levels	10-1
10.2	Fundamental Concepts of Environmental Noise	10-2
10.3	Noise Monitoring and Study	10-4
10.4	Noise Mitigation	10-5
10.5	Noise and Land Use Compatibility Guidelines	10-6
10.6	Noise Policies	10-10

11	Implementation Summary of Implementation Actions	11-3
12	Glossary	12-1

	LIST OF TABLES	Chapter/Page
1-1	Comparison of General Plan Population Holding Capacity	1-2
2-1	Proposed General Plan: Population, Housing, and Jobs	2-2
2-2	Residential Land Use	2-20
2-3	Housing Units by Sector	2-27
2-4	Commercial Land Use by Sector	2-33
2-5	Business and Industrial Land Use by Sector	2-39
4-1	Inventory of Parks and Recreation Centers 1990	4-3
4-2	Provision of Future Parks	4-7
4-3	Proposed Parks	4-8
4-4	Proposed Trails System Vacaville General Plan Revision	4-12
5-1	School Capacities and Enrollment, February 1990	5-12
5-2	Projected Students Under General Plan Buildout, 2010	5-13
5-3	Proposed New Schools	5-15
6-1	Recommended Roadway Improvements	6-4
7-1	Vacaville Quantified Affordable Housing Goals, 1990-1995	7-5

7-2	Housing Affordability Analysis Moderate- and Low-Income Households March 1990	7-7
8-1	Ambient Air Quality Vacaville-Merchant Street Station 1985-1988	8-5
9-1	Proposed Upstream Reservoirs	9-6
10-1	Noise and Land Use Compatibility Guidelines and Airport/Land Use Noise Compatibility Criteria	10-7
10-2	California State Noise Standards for Motor Vehicles	10-13
10-3	Maximum Allowable Noise Levels from Construction Equipment	10-14
11-1	Vacaville Land Use/Zoning Consistency	11-2

LIST OF FIGURES

Follows Page

General Plan Diagram

in pocket at rear

1-1	Planning Sectors	1-4
2-1	Major Ridges and Creeks	2-2
2-2	Policy Plan Areas	2-7
2-3	Urban and Agricultural Service Areas	2-8
2-4	Prohibited Locations for Apartments	2-28
2-5	Residential-Industrial Buffer	2-30
3-1	Important Farmland	3-2
4-1	Existing and Proposed Parks and Recreation Centers	4-7
4-2	Trails System	4-11
5-1	Conceptual Water System Improvements	5-1
5-2	Conceptual Sewer System Improvements	5-3
5-3	Existing and Proposed Schools	5-14
6-1	Recommended Future Roadways by Type	6-2
6-2	Major Roadway Improvements	6-6
6-3	Bikeways	6-12
6-4	Airport and Land Use Compatibility Districts	6-15
9-1	Relative Susceptibility to Landsliding	9-1
9-2	Liquefaction Potential	9-1
9-3	Flood Hazard	9-5
9-4	Fire Hazard	9-9
10-1	Noise Contours	10-1
10-2	Airport Noise Contours	10-2

1 INTRODUCTION

1.1 DEVELOPMENT HISTORY AND FUTURE PROSPECTS

In 1841 the Mexican Government granted ten square leagues in what is now northern Solano County to Juan Felipe Peña and Manuel Cabeza Vaca. A decade later William McDaniel bought the townsite of Vacaville for three thousand dollars and filed a plat. Vacaville was incorporated in 1892 as a general law city. The economy was based almost entirely on fruit raising until World War II. The climate gave Vacaville's early-ripening fruit an advantage in the market, but lack of irrigation water limited production.

Since 1960, the City has grown from a population of 10,890 to an estimated April 1, 1990 household population of 62,950 excluding the California Medical Facility. This represents a rate of population increase averaging about 4.5 percent per year. This growth initially was caused by expansion of Basic Vegetable Products Company and construction of Travis Air Force Base and the California Medical Facility. More recently, Bay Area job growth, coupled with industrial development in the I-80 corridor, has spurred residential and commercial development.

The pace of home building has increased from an average rate of 750 units per year, which was the basis for the 1980 General Plan, to over 2,000 units permitted in 1989. The City has made the transition from a small agricultural community to a suburban city in a major transportation corridor without losing many of the small town qualities that make it an attractive place to live. The hillsides and ridges surrounding the city have been largely preserved, and farming has continued outside the planned urban area.

Looking ahead, Vacaville is entering a new era of "city building," the period when the City will set the physical cornerstones upon which the structure for a mature, economically sound and balanced community will be built. Over the next 20 years, regional population projections prepared by the Association of Bay Area Governments (ABAG) indicate that rapid growth will continue in Solano County. The 1980 General Plan was geared to a population holding capacity of 90,000. By contrast, the 1990 General Plan anticipates a twenty-year population holding capacity of approximately 104,000 (excluding the California Medical Facility). The City's economic base also is expected to grow and diversify, with job gains expected in the office and technology sectors as well as in government, manufacturing and distribution, health care, retailing and services.

The 104,000 population holding capacity is based upon an average of 2.6 persons per household and assumes that residential densities will occur at the midpoint of each residential land use category. Table 1-1 shows projected populations based on densities at the low and high ends of the land use categories. The density of any specific site may be greater or less than the midpoint.

TABLE 1-1
COMPARISON OF GENERAL PLAN
POPULATION HOLDING CAPACITY

Land Use Density Assumption	Household Population at Plan Buildout^a
Mid-point of Range	104,500 _±
High-end of Range	112,000 _±
Low-end of Range	97,500 _±

Note: ^aExcludes California Medical Facility (CMF) and CMF South.

1.2 NATURE AND FUNCTION OF THE GENERAL PLAN

This General Plan is a comprehensive update of the 1980 General Plan. It embodies policies for land use, circulation, community facilities, and environmental resource management. The balance between industrial, commercial and residential use, community identity, traffic, parks, and open space are the leading development issues. General Plan policies are designed to address each of these issues by establishing *Guiding Policies* that state the City's philosophy and *Implementing Policies* that represent its commitment to action. The Plan seeks to resolve apparent conflicts between stated community priorities, such as the desires to both provide sites for industry and housing and retain open space, or to provide for additional commercial development without creating unacceptable traffic impacts.

A General Plan for a city functions much as a constitution for a nation. It is a statement of the community's vision of its ultimate physical development and, to some extent, a guarantee of stability. State law requires each city and county to adopt and maintain a General Plan consisting of seven elements (land use, circulation, housing, open space, safety, conservation and noise) that must be consistent, each with the others. Optional elements, the Parks and Recreation Element (Chapter 4 of the Plan), and the Public Facilities, Institutions and Utilities Element (Chapter 5), also must be internally consistent. In addition to internal consistency requiring that, for example, the Plan's transportation system have sufficient capacity to serve proposed development, City actions must be consistent with its General Plan. Finally, the General Plan should show the City's role in meeting regional housing demand, including the demand for units affordable by households of all income groups.

The Vacaville General Plan consists of a General Plan Diagram (a drawing that shows arrangement and relations of land uses including principal roads) and carefully worded policies, accompanied by explanations needed to make the reasons for the policies clear. The Plan has three purposes:

- o To enable the City Council, Planning Commission and Community Services Commission to establish long-range development policies;
- o To provide a basis for judging whether specific private development proposals and public projects are in harmony with the policies; and
- o To guide other public agencies and private developers in designing projects that are consistent with City policies.

The plan must be:

Long-range: However imperfect our vision of the future is, almost any development decision has effects lasting more than 20 years. In order to create a useful context for development decisions, the Plan must look at least that far ahead. This is because substantial development is likely in the Vacaville Planning Area by the end of the planning period.

Comprehensive: It must coordinate all major components of the community's physical development. The relationship between land-use intensity and traffic is the most obvious.

General: Because it is long-range and comprehensive, the Plan must be general. Neither time nor knowledge exist to make it detailed or specific. The Plan's purpose is to serve as a framework for detailed public and private development proposals. It establishes requirements for additional planning studies where greater specificity is needed before the City can act on development proposals.

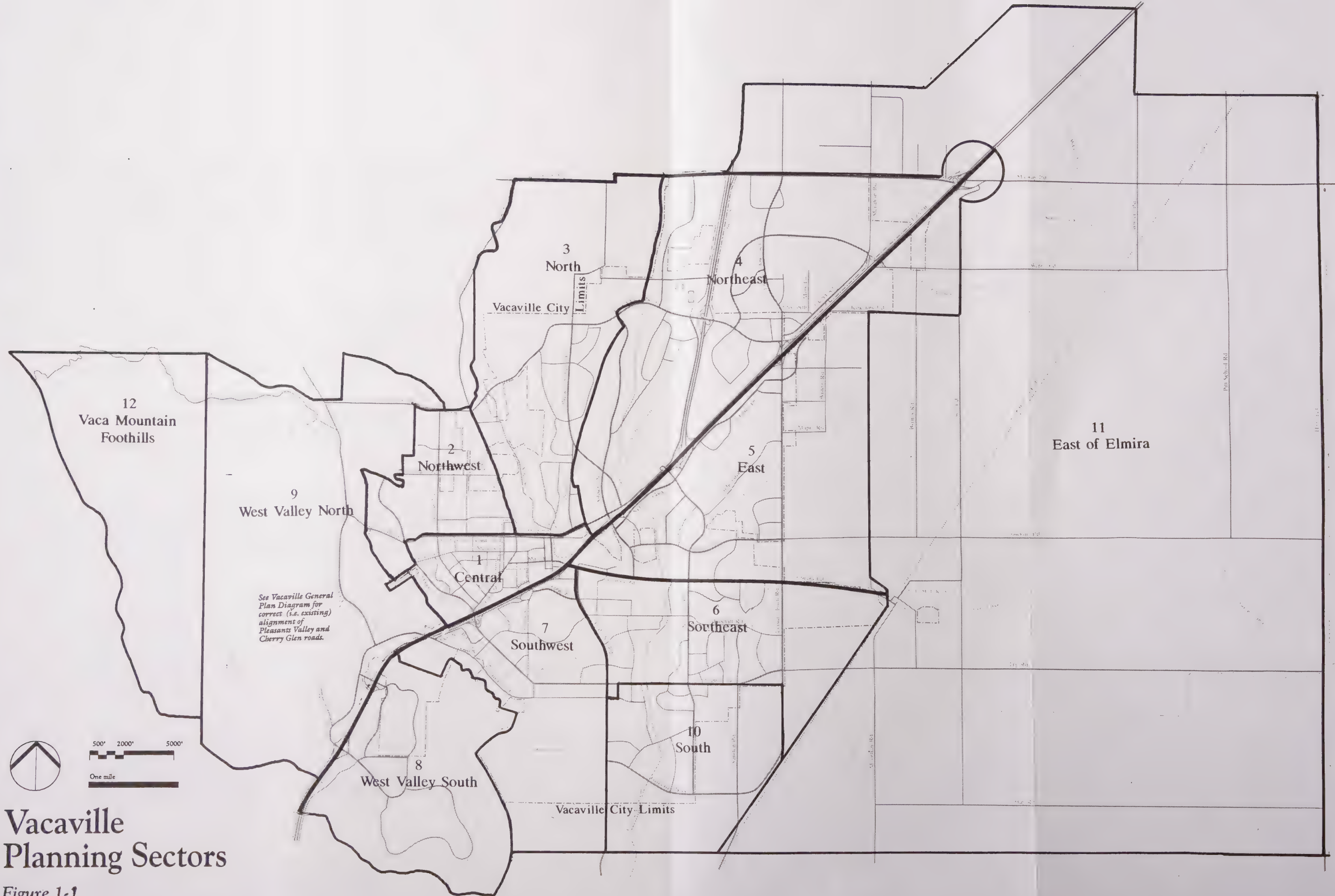
Each individual element of the General Plan (maps and text) can be amended as often as four times each year (Gov. Code, Sec. 65361) and should be revised every five to ten years. The Housing Element is a separate document with supporting technical information. Housing Element Policies are found in the body of the General Plan text.

The General Plan is implemented by the weekly decisions of the City Council, Planning Commission, and other decision-makers, as required by the zoning and subdivision ordinances, specific and redevelopment plans, and the City's capital improvement program.

The Zoning Ordinance includes detailed use classifications and standards. The zoning map must be consistent with the General Plan map, but will not be identical to it, particularly in areas where changes in use are anticipated during the 20-year time period of the General Plan. The General Plan text includes policies that will require revisions to current zoning regulations.

1.3 THE VACAVILLE PLANNING AREA

State planning law directs each jurisdiction to include in its General Plan "any land outside its boundaries which, in the planning agency's judgment, bears relation to its planning" (Gov. Code, Sec. 65300). Based on that direction, the Vacaville Planning Area includes approximately 100 square miles. The Planning Area includes land outside the Sphere of Influence or "probable ultimate physical boundaries and service area of a local governmental agency," as currently designated by the Solano County Local Agency Formation Commission (LAFCO). Figure 1-1 shows the overall area and the planning sectors as well as the City limits. The current Sphere of Influence is shown on Figure 2-3. If urban services are to be extended to outside the City's existing urban area, Vacaville is the only logical municipal provider.



Vacaville Planning Sectors

Figure 1-1

General Plan policies represent the City's statements for the desired development of its entire Planning Area. Land inside and outside the corporate boundary is treated equally. Unless stated otherwise, all Plan policies refer to the entire Planning Area or specified individual subareas, regardless of the agency having jurisdiction at the time of Plan adoption.

1.4 USING THE PLAN

The General Plan is intended to save the reader's time through clear organization and concise statement of City policies. The Environmental Impact Report (EIR) on the General Plan is published in a separate volume, as is the full text of the Housing Element. Both the Plan and EIR include cross-references to policies and data sources.

The General Plan Diagram (in the pocket at the back of this volume) depicts the future land use and circulation pattern envisioned by the City. Vacaville's General Plan Diagram is a view of the City in its built-out state; phasing and annexation policies and standards will govern expansion beyond the current City limits.

The Diagram must be used in conjunction with the Plan text. The Land Use Classifications Section explains the Diagram's legend and specifies density and intensity ranges for each category. Policies throughout the Plan more fully express the City's intent for each category. A glossary at the end of the General Plan defines technical terms.

Two types of policies are included in the Plan: *Guiding Policies* are the City's statements of its goals and philosophy; *Implementing Policies* represent commitment to consistent actions. Implementing Policies are as specific as is appropriate given the City's current level of knowledge and agreement on each policy issue. These policies will provide direct guidance on City actions and decisions. Adopted policy statements are printed in roman type in the Plan. Explanatory material is italicized and is not adopted.

The seven elements of the Vacaville General Plan are grouped into three sections: Land Use and Circulation, Housing, and Environmental Management. The Land Use and Circulation Section includes three required elements: the Land Use Element (Chapter 2), the Open Space Element (Chapter 3), and the Transportation Element (Chapter 6). It also includes the two optional elements: the Parks and Recreation Element (Chapter 4), and the Public

Facilities, Institutions, and Utilities Element (Chapter 5). The Environmental Management Section includes three required elements: the Conservation Element (Chapter 8), the Safety Element (Chapter 9), and the Noise Element (Chapter 10). The seventh required element of the General Plan is the Housing Element, which is summarized in the Housing Section (Chapter 7). Chapter 11, Implementation, excerpts and summarizes all of the implementation actions presented in other sections.

Text and policies within each element are organized by subject, with cross references where policies on that subject are found in another chapter. These are intended to lessen confusion resulting from the overlapping requirements of Plan Elements required by State law.

The City has no obligation to approve projects at the maximum permitted density for any category. Text policies may limit development on particular sites in ways not apparent from the Plan diagram. For example, Plan policies protecting natural habitat or preventing flooding may prevent designated densities or intensities from being reached on some parcels. Likewise, policies requiring maintenance of traffic levels of service or elevation limits on water service will affect development potential. Determinations on questions such as these will be influenced by the actions of special districts, and state and federal agencies as well as by the City.

The classifications cover both public and private development, and serve as a guide for zoning. Zoning regulations must be consistent with the Plan, but need not be identical to it. Because of the scale of the Plan, and the mix of existing development types, development on some small sites (less than one acre in size) may not be specifically designated. For such sites, the specific interpretation of the land use designation shall be made as part of the zoning process. The policies of the General Plan shall serve as the basis of any such determination.

The General Plan Diagram is intended to be a general illustration of the policies of the General Plan. The Diagram is not intended to reflect every policy direction, and review of Plan policies is necessary to determine precise land use potential of any site. Should there be any apparent conflict between the Land Use Diagram and Plan policies, it is intended that Plan policies provide the guiding direction.

1.5 PUBLIC PARTICIPATION

Consultant work on the General Plan began in October 1988; prior to that, the Planning Commission and the City Council held workshop sessions during which Plan policies and issues to be addressed were reviewed. The General Plan Committee (composed of the members of the City Council, Planning Commission, and two members of the Community Services Commission) provided policy direction on the proposed General Plan.

Three kinds of public meetings and forums for community participation have been held:

- o At two community "sector" meetings in January 1989, the consultants explained their work and asked for response from participants.
- o At General Plan Advisory Committee meetings from June 1988 through March 1990, planning issues and options and alternative sketch plans were presented and community comments were solicited. More than two dozen public meetings were held at which public input was solicited.
- o In February and July of 1989 and June of 1990, UA Cable presented three televised shows on the General Plan Program, during which viewers were asked to "call in" questions to be discussed by City staff and the General Plan consultant. In May 1990, UA Cable presented an informational show where the Proposed General Plan was presented by City Staff.

Workshops and meetings were well-attended by persons who represented the full spectrum of community interests: homeowners, renters, seniors, open-space advocates, landowners, developers, merchants, major employers, realtors, and representatives of public agencies. Working papers and sketch plan maps were available for public review at City Hall and the library.

In addition to the public meetings and forums noted above, there were additional special meetings, events and newsletters to reach out to the citizens of Vacaville:

- o Three newsletters in February and July 1989 and May 1990 on the General Plan update were produced as special inserts in the local newspaper.
- o A City staff person was a guest on a special UA Cable news show to discuss the General Plan Update with members of the local news media.

- o City staff made numerous presentations on the General Plan Update to local homeowners groups, service clubs, business organizations and other groups throughout the General Plan revision process.
- o The City held 11 neighborhood meetings in January and February 1990 at locations throughout the City at which City staff made presentations and answered questions on various topics including the General Plan Update.

1.6 GENERAL PLAN REVISION PROCESS

The planning process started with an assessment of existing conditions and future prospects. Then, following community meetings, issues and planning options were identified and analyzed. Sketch plans showing different development patterns also were prepared and compared in terms of traffic generation, utilities requirements, economic and fiscal effects and environmental consequences. Two working papers, *Existing Conditions and Future Prospects: Planning Issues and Options* (March 1989) and *Alternative Sketch Plans* (July 1989), were prepared to guide discussion with the General Plan Committee. These were structured to facilitate reaching consensus on many planning issues and proposals affecting specific development sites within the Planning Area.

2 LAND USE ELEMENT

The General Plan map at the back of this document and the text of the Land Use Element constitute the framework of the General Plan. By law, the Land Use Element must include "standards of population density and building intensity" so circulation and public-facilities needs can be determined. Zoning and subdivision regulations implement the Land Use Element and are the City's most powerful tools for shaping its future physical form.

Measured by the land use policies of the General Plan, the 100-square-mile planning area has reached about 53 percent of its housing capacity. Of the land designated for commercial and industrial use, approximately 22 percent has been developed. Table 2-1 summarizes the population, housing and job potential of the Plan at buildout, assumed to be 2010.

The land use policies of the Plan are derived from the image desired by the City, the character of existing development, and the opportunities and limitations of particular sites. Land use policies and explanatory text are grouped together in the subsequent sections on community form and image, growth strategy, special area policies, land use classifications, residential areas, retailing and commercial services, and industrial and business park development.

2.1 COMMUNITY FORM AND IMAGE

Vacaville's development is transforming it from a small rural town to a moderate-sized suburban city. Although its history will continue to play an important role in setting the character of the community, new influences must also be integrated. The strongest visual features of the City are, and will continue to be, the Vaca Mountains, Alamo Creek Ridge, and the English Hills along the western borders of the City. These natural hillsides and ridgelines can be seen from most of the Planning Area. Creeks and associated riparian corridors are another valuable visual asset. These features are illustrated in Figure 2-1. If Vacaville wishes to retain its identity as a distinct city, as opposed to the endless urban sprawl so prevalent in other metropolitan areas of California, it must establish urban boundaries to the north, south, and east. Where natural features are not available to define these boundaries, political boundaries must be established.

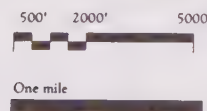
TABLE 2-1
PROPOSED GENERAL PLAN:
POPULATION, HOUSING AND JOBS

	Existing April 1, 1990	Buildout (2010)	Percent Increase
Household Population ^f	62,950 ^a	104,185 ^e	66
Housing Units			
Single-Family	13,418	23,151 ^e	73
Multi-Family	5,280	13,702 ^e	160
Other ^b	2,329	3,218 ^e	38
Single-Family Share	63.8%	57.80%	-6.0%
Average Annual Growth Rate, 1990-2010	--	3.3%	--
Total Potential Jobs ^c	17,390	66,496	282
Ratio of Jobs to Employed Residents ^d	0.56:1	1.29:1	--

Notes: ^aEstimate for April 1, 1990, based on Department of Finance estimate for January 1989 and subsequent growth estimate.
^bMobile homes and retirement residential (Leisure Town).
^cExisting from ABAG Projections '90; buildout estimate is based upon projected jobs per acre.
^dAssume 0.495 employed residents per household resident.
^eThese population and housing unit projections assume development at the midpoint of the density ranges.
^fHousehold population excludes inmates at California Medical Facility.

- Major Ridge Line
- Minor Ridge Line
- Slope - 25% or more
- Creekway
- Riparian Vegetation (Not to scale)

See Vacaville General
Plan Diagram for
correct (i.e. existing)
alignment of
Pleasant Valley and
Cherry Glen roads.



Vacaville Major Ridges & Creeks

Figure 2-1

The older sections of Vacaville, especially the Downtown, project a distinctive identity, formed by the City's past. The Downtown Development Program, initiated in 1985, is intended to enhance the character of the core area.

Over the coming years, there must be a deliberate effort to promote design that is not only attractive but which expresses the community identity. Ideas embodied in the General Plan and concurrent related studies include: creation of a revitalized and expanded Downtown that incorporates the old site of Basic American Foods Corporation; individual landscape treatment of arterial streets; design elements that mark points of entry; preservation of open space on slopes and major ridges; and preserving open space between Vacaville and neighboring cities.

Guiding Policies

- 2.1-G1 Maintain Vacaville as a free-standing community surrounded by foothills, farmland and other open space.
 - 2.1-G2 Retain ridgelines and hillsides of 25 percent and greater as open space.
 - 2.1-G3 Establish open space linkages by preserving habitat areas, including natural creek corridors. Use utility easements where possible as open space linkages.
- See Conservation Element, Section 8.1.*
- 2.1-G4 Minimize conflicts between agriculture and urban uses and provide for a transitional area or buffer between agricultural and urban uses.
 - 2.1-G5 Design aesthetically pleasing roadways, including a loop street system lined with trees or other appropriate landscaping, that connect Vacaville neighborhoods and serve planned development. Streets alone should not be used to set the outer limits of urbanization.
 - 2.1-G6 Develop and implement programs to strengthen community identity, including establishing standards for design and landscaping for all development, including residential, commercial and industrial development and public facilities.

- 2.1-G7 Develop standards for entry points to the city, including landscape design and a coherent signage design.
- 2.1-G8 Preserve the predominant single-family residential character of Vacaville while providing other housing opportunities. Protect established neighborhoods from incompatible uses.
- 2.1-G9 Preserve scenic features and the feel of a city surrounded by open space, and preserve view corridors to the hills, and other significant natural areas.
- 2.1-G10 Protect the natural environment that the City enjoys and use creeks, hills, utility corridors, viable agricultural lands or other significant natural features wherever appropriate to establish ultimate City boundaries.
- 2.1-G11 Retain hill forms north of Mason Street and adjoining the CBD to help define location and setting of the CBD. In those portions where development is permitted, buildings should be designed to emphasize the hill form and to maximize the view opportunities from these areas.

Implementing Policies

- 2.1-I1 Prepare design guidelines for all development, including residential, commercial and industrial projects and public facilities. Identify and prepare design guidelines for entry points into the City and Downtown. These shall specify criteria for building design and siting, exterior materials and finishes, landscaping, screening, fences, walls, and buffers between incompatible uses.
- 2.1-I2 Negotiate with affected jurisdictions (City of Fairfield, City of Dixon, Solano County, Solano Irrigation District) and public and private agencies to ensure creation of agricultural zones and open space corridors that will serve as community separators between Vacaville and Fairfield and Vacaville and Dixon.
- 2.1-I3 Adopt and implement a plan to establish standards and design guidelines for the city's streets, entry ways and open spaces.

Making streets identifiable by their design, marking entrances to the City, finding alternatives to sound walls, and getting the

strongest visual lift from existing open spaces are important ingredients of image. The practice of designating some roadways as "scenic" implies that lesser design standards are acceptable on others. The Plan calls for high-quality design throughout the Planning Area.

- 2.1-I4 Establish a mechanism whereby new development in City fringe areas may be assessed impact fees or be required to purchase conservation easements to acquire lands designated for protection within community separators or Greenbelt Buffers.

Community separators and Greenbelt Buffers are designated on the General Plan Diagram.

- 2.1-I5 Adopt resource protection regulations that establish standards for designated agriculture/open space areas and urban open space for protection of major ridgelines, creek and riparian corridors, wetlands, and hillsides. Standards for open space management and grading also shall be established.

Agriculture/Open Space and Urban Open Space are designated on the General Plan Diagram. These regulations should be incorporated into the Zoning Ordinance and apply to hillside subdivisions and to development potentially affecting creek corridors. Guidelines for grading, subdivision design, public access to open space and hazard mitigation are certainly helpful and can supplement the regulations.

- 2.1-I6 Make open space more accessible to the public with a linked park and trail system that takes advantage of surrounding open space.

The Open Space and Parks and Recreation elements establish the policies for hillside and ridgeline preservation and for a park and trail system for the City. Figure 2-1 shows major ridges and creeks to be preserved, Figure 4-1 shows existing and proposed parks, and Figure 4-2 shows trails designated by the Plan. Parks are also designated on the General Plan Diagram.

- 2.1-I7 Maintain and replace, as necessary, lighting and landscaping on the City's streets.

A citywide landscape maintenance district could be formed. All new developments are within landscaped maintenance districts, but older areas of the City are not.

- 2.1-I8 Continue to develop a cultural resources program, including visual arts and performing arts.

Public art and cultural programs help enhance civic pride. Performing arts centers, sculpture, fountains, and related works of art can contribute to the sense of place. Measure I provides initial funding for this effort, which will need ongoing support. See also Section 5.2, Community Services, Cultural Facilities, and Historic Resources.

- 2.1-I9 Continue code enforcement and provide assistance where needed to eliminate substandard buildings and improve the appearance of neighborhoods and commercial areas.

- 2.1-I10 Promote and acknowledge outstanding community design by, for example, continuing the Vacaville Design Awards Program.

The City jointly sponsors, with the Vacaville Chamber of Commerce, an annual event to publicly honor outstanding contributions to various areas of community design.

2.2 GROWTH STRATEGY

The City recognizes that local and regional economic conditions will be the primary determinants of local growth potential. However, accommodating that potential requires public services, facilities and resources such as roads, sewer lines, stormwater drainage systems, water treatment and distribution, schools, and police and fire protection. Provision of these services requires the City to establish both short- and long-range growth targets. The primary vehicles for identifying needed public facilities, their timing and their funding shall be utility master plans and policy plans. These may be supplemented by additional documents and policies such as the Capital Improvement Program (CIP) and the Comprehensive Annexation Plan (CAP). A planned growth ordinance is required as an immediate follow-up to the adoption of this General Plan in order to implement the policies of this plan.

To strengthen and protect its image, Vacaville needs to control the timing and design of all new development within the planning area because the entire area will be perceived as part of the City. Therefore, the City will work to extend its Sphere of Influence to include all of the area in which development will affect the City's image. The City also will work closely with the Solano Irrigation District (SID) in order to define the areas for future

urban water service and agricultural/non-urban water service with the City's Planning Area.

As part of the proposed agreement with the Solano Irrigation District, the City and the District would commit to accommodate and support urban development within a specified urban service area. Conversely, both entities would commit not to support urban development within an agricultural service area. The agreement would establish a 20-year urban service area line on the eastern side of the City adjoining prime agricultural lands, and a 10-year line on the northwest side of the City adjacent to the Vaca Valley. The 10-year line could be re-evaluated as part of a future (year 2000) update of the Vacaville General Plan.

Policy Plans

As new areas are brought into the City for development, they shall be included in a policy plan. Policy plans also shall be required for areas within the City where major projects are being considered or a significant change in land use is occurring. Policy plans may be implemented by themselves or in conjunction with Development Agreements, executed consistent with State law. Figure 2-2 identifies existing policy plans and the location of future policy plans. Additional policy plan areas may be identified in the future. Policy plans shall define permitted and conditionally permitted land uses, major public facilities (including roads, water, sewer and drainage facilities, schools and parks), phasing, infrastructure financing mechanisms and any other elements that may be needed to ensure an orderly development process with minimal adverse impacts.

Guiding Policies

- 2.2-G1 Establish a long-term Planning Area, and within this area distinguish an agricultural service zone and an urban service zone. (See Figure 2-3.)

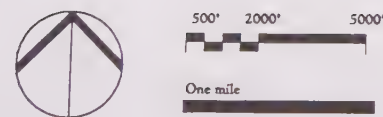
This will facilitate long-term planning by clearly indicating what limits govern extension of urban services. To implement this policy, the City intends to enter into an agreement with the Solano Irrigation District to ensure that water service for urban uses will only be provided within the urban service area and, conversely, that water for irrigation and other agricultural purposes is available in the agricultural service zone.



New (As labeled, names subject to change)

Existing

- 1 Vaca Valley Industrial Park
- 2 Royal Cathay Business Center
- 3 Vacaville 505/80 Industrial Park
- 4 Allison Business Area
- 5 Nut Tree Business Park
- 6 Kirkpatrick-Power Industrial Park
- 7 Peabody-Alamo Office Center
- 8 Foxboro
- 9 Downtown Vacaville
- 10 Nut Tree Ranch
- 11 Vaca Valley Medical Campus
- 12 Vaca Valley Corporate Center
- 13 Interstate 80/Alamo Drive
- 14 Orange Tree
- 15 Rainbow Land
- 16 Vacaville Auto Center
- 17 East Side of Alamo Drive
- 18 Green Tree Park



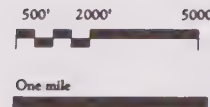
Vacaville Policy Plan Areas

Figure 2-2

- 2.2-G2 Establish a growth strategy for the urban service zone which matches residential growth with adequate public facilities. Monitor the rate of non-residential growth to ensure that it does not overburden the City.
- 2.2-G3 Ensure that scarce natural resources, such as water, are allocated and utilized to maximize community benefits, and manage growth so that the quantity and quality of public services and utilities within the City provided to existing businesses and residents will not drop below an acceptable level of service because of new development. New development is not responsible for resolving all existing service or facility deficits. Existing development bears some responsibility to fund improvements that will resolve such deficits, and development is likewise responsible for funding the costs of maintenance and depreciation of facilities.
- This policy may require that annual adjustments on the amount of residential or non-residential development may need to be imposed from time to time.*
- 2.2-G4 Take action to ensure that the City will have control over all areas within the planning area in which development will affect the City's image, and all areas that should logically be provided with urban services by the City.
- 2.2-G5 Plan for and carry out improvements to the City's infrastructure, consistent with the General Plan, to preserve economic vitality, accommodate new housing, increase the City's revenue base, enhance mobility and economic opportunity, and correct deficiencies.
- 2.2-G6 Strive to maintain a reasonable balance between potential job generation and the local job market with a long-term goal of one job for each employed resident.
- 2.2-G7 Strive to maintain a reasonable balance between new job income levels and housing costs within the City.
- 2.2-G8 Distribute housing, shopping, and employment opportunities on each side of I-80 to minimize the need for excessive travel across I-80.
- 2.2-G9 De-annex lands not required for urban development within the 20-year planning period.

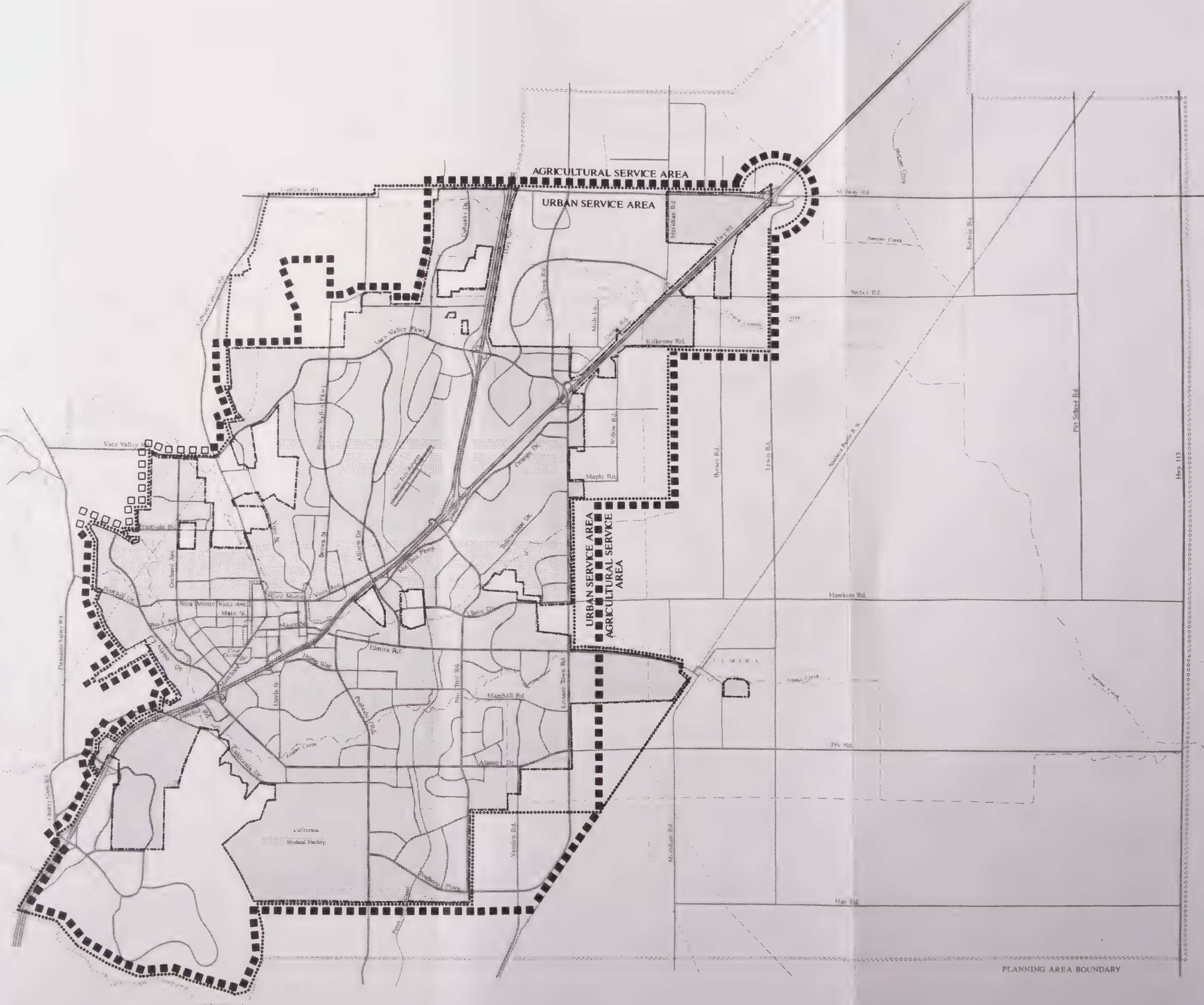
- Vacaville City Limits - (as of April 1990)
- Sphere of Influence Boundary
- 20-Year Urban Service Area Boundary
- 10-Year Urban Service Area Boundary
- Planning Area Boundary

Note: Shaded area represents incorporated City Limits.



Vacaville Urban & Agricultural Service Areas

Figure 2 - 3



PLANNING AREA BOUNDARY

- 2.2-G10 Ensure that all new urban development within the Planning Area occurs within the City of Vacaville. A single exception is the Elmira area where infill of the townsite area under the jurisdiction of the Solano County is anticipated. New urban developments within the City limits are expected to annex to the City of Vacaville as a prerequisite to development.

Consistent with this annexation requirement, the City's policy is that City utility services, water, and sanitary sewer, will not be extended to new development outside of the City limit (with the exception of infill in the Elmira area). The City Council may approve exceptions to this policy in situations where the following three conditions are met:

- o The area in question cannot annex to the City immediately, because it is not currently contiguous to the City limit.
- o The property owner signs a recorded, irrevocable agreement to annex the property to the City when such annexation is requested by the City.
- o The development is consistent with the Vacaville General Plan and is found to meet all appropriate City development standards.

Implementing Policies

- 2.2-I1 As part of an agreement with SID, establish a study area between the Mount Diablo meridian line, Leisure Town Road, the Southern Pacific Rail Road tracks and the southern edge of the Locke-Paddon area. The City and SID shall conduct a study to determine land uses and land use issues for this area and their impacts upon SID, property owners, and others. The City and SID shall make every effort to complete this study within five years. The City will allow no development east of Leisure Town Road and south of the Locke-Paddon area until such a study is completed.
- 2.2-I2 Prepare and implement a planned growth ordinance with both short-term and long-term elements, which includes the following:
- o An average residential growth target, allowing adjustments for the availability of public services, facilities and resources, regional housing needs, and local economic needs.

- o Monitoring of the rate and intensity of commercial and industrial development, and reporting of that information and of the balance of residential and non-residential land uses within the City to the Planning Commission and the City Council.
- o Monitoring of the level of service of public services, facilities and resources, and projection of the impacts of growth upon those service levels.
- o Identification of growth areas for 1-5, 6-10, 11-15 and 16-20 year phases.

The Lower Lagoon Valley is planned for near-term development, within the first 5 years.

- o Continued monitoring and regulation of the City's housing mix.
- o Provision of a range of housing types consistent with the housing mix policies. (See Policy 2.5-G2)

- 2.2-I3 Continue to monitor annually the City's housing mix to ensure that apartment-type units do not exceed 20 percent southeast of I-80 and northwest of I-80.
- 2.2-I4 Negotiate agreements with the Solano Irrigation District and other local government entities to help direct the provision of urban services while maintaining as much viable agriculture on prime agricultural soils as is practical and supportive of regional agricultural production consistent with the policies of this General Plan.
- 2.2-I5 Continue to implement an Economic Development Strategy, including specific incentives and promotional activities designed to attract desirable new businesses to the City.
- 2.2-I6 Do not permit development of such intensity or density that, if built without commensurate transportation or other infrastructure improvements, the resulting water and sewer service requirements and traffic generated will create substantial problems or unacceptable levels of service, unless an acceptable mitigation program to provide these services is implemented.

2.2-I7 Work with the County and the Local Agency Formation Commission to expand the Vacaville Sphere of Influence in order to include all of the area in which development would affect the City's image and ability to provide services.

2.2-I8 Establish a phasing plan and allow urban development only in accord with a plan for full urban services (police, fire, parks, water, sewer, streets, and storm drainage) to which all providers are committed. Areas lacking full services are deemed outside the urban-service area and are unsuited for urban development regardless of Plan designation until services are assured, and shall not be identified in a phasing plan.

2.2-I9 Require that policy plans be prepared for new areas brought into the City for development, and revise existing policy plans to conform to General Plan policies and requirements for infrastructure financing mechanisms and open space.

Areas subject to policy plans are shown in Figure 2-2.

2.2-I10 Require new development to pay capital improvement fees for public facilities as necessary to maintain adequate resources and service levels.

Adequate public facilities should be provided for new urban development, and new developments should bear their "fair share" cost of providing such facilities. In order to make reasonable provision for these new public facilities, the City of Vacaville has established public facilities fees which are applied to all new development. The fees are intended to provide for facilities that are required in addition to the normal onsite and offsite development improvements. Such fees are established to implement the policy of the General Plan and may include charges for connection to the water system, connection to the sanitary sewer system, parkland and improvements, school facilities, drainage improvements, and other capital improvements such as streets, bridges, traffic signals, and public buildings. The City Council may enact other public facilities fees if it finds that such fees are required to implement the policy of the General Plan.

2.2-I11 Establish a mechanism to monitor new development where infrastructure limits are being reached or exceeded so linkages with necessary improvements can be established and funded.

- 2.2-I12 Allow development to occur only in new outlying development areas with required policy plans as part of a coordinated plan for land uses, public facilities, and public services. Individual, piecemeal developments within these areas are not permitted.

2.3 SPECIAL AREA POLICIES

Planning Sector Policies

Within certain planning sectors specific policies apply to unique areas with special characteristics. (See Figure 1-1.) These clarify and refine citywide policies as applied to these areas.

East Sector

- 2.3-I1 Conventional housing may be approved for the 20 acre manufactured housing park designated east of Leisure Town Road and north of Elmira Road. This conventional housing may be built in place of some or all manufactured housing only if the Planning Commission and City Council make specific findings, based upon the project proposal, that the conventional housing would be as affordable as the manufactured housing types over both the short and long term.

To ensure continued affordability, one option that the City could pursue is the requirement for the developers who exercise the conventional housing option to enter into an affordable housing agreement with the City. This agreement could define income ranges for continued affordability and explain how it could be ensured.

- 2.3-I2 Require that the 38+ General Commercial site located in the south portion of the Orange Tree Business Park be the subject of a detailed traffic analysis and policy plan revision. The Policy Plan shall specify limits of use and intensity to insure compatibility with the adjacent Leisure Town and the Lemon Tree Mobile Home Park communities, and insure that the development will not reduce the level of service in any impacted intersection below LOS D.

- 2.3-I3 The 19+ acre site located at the northwest corner of Allison Drive and Elmira Road shall be included in the Allison Policy Plan.

- 2.3-I4 Include specific standards for adequate physical and aesthetic separation of commercial and office uses from adjacent residential uses in the Nut Tree Business Park Policy Plan. The Policy Plan permits office, research, and development, business service and general commercial uses, excluding: drive-in uses, hotels and motels, recreational commercial uses, automobile service or repair, theaters, manufacturing uses, uses involving outside storage.
- 2.3-I17 The separator between residential and industrial uses may be reduced to less than 200 feet for those areas bordering the Maris Industrial Park. Specific standards for the separator shall be established in a master plan for development of the area. *<Modified by Resolution No. 1991-T-2 (GP-1-91)>.*

North Sector

- 2.3-I5 *<Deleted by Resolution No. 1991-T-2 (GP-1-91)>.*
- 2.3-I6 In the area between the Boulder Valley and North Vine Street Estates projects, immediately south of the future alignment of Vaca Valley Parkway, designate the two small valleys on the east and northeast side, outside of the 25 percent slope area as Residential Estates. Water service to and development of this property is entirely dependent upon the expansion of the Vine Street area water system, and dedication of the undevelopable hillside areas to the City for Urban Open Space.

Northeast Sector

- 2.3-I7 Conventional housing may be approved for the 20 acre manufactured housing park designated east of Leisure Town Road and north of Ackerley Road. This conventional housing may be built in place of some or all manufactured housing only if the Planning Commission and City Council make specific findings, based upon the project proposal, that the conventional housing would be as affordable as the manufactured housing types over both the short and long term.

To ensure continued affordability, one option that the City could pursue is the requirement for the developers who exercise the conventional housing option to enter into an affordable housing agreement with the City. This agreement could define income ranges for continued affordability and explain how it could be ensured.

2.3-I8 Require that a policy plan for the Highway Commercial site north of Quinn Road, south of Ellsworth Road, and east of Mills Lane include the following requirements:

- o Direct access onto Ellsworth Road from the commercial area south of Ellsworth Road is prohibited.
- o Direct access onto Mills Lane from the commercial area north of Ellsworth Road is prohibited.
- o A landscaped or solid buffer shall be installed on the north side of the Highway Commercial site to protect adjoining residential uses, and uses incompatible with the adjoining residential area shall not be permitted.
- o Annexation and development shall be coordinated and not happen piecemeal.
- o There shall be a coordinated plan for the extension of public facilities (streets, sewer, water, drainage, etc.) and a coordinated circulation plan.

2.3-I9 Require that a policy plan for the residential area east of I-505, south of Midway Road and north of Kilkenny Canal include a site for a 20-acre manufactured housing site and a greenbelt buffer or golf course at least 500 feet wide immediately to the east of I-505 to provide an adequate noise and safety buffer for adjacent residential uses.

South Sector

2.3-I10 Conventional housing may be approved for the 20 acre manufactured housing park designated west of Vanden. This conventional housing may be built in place of some or all manufactured housing only if the Planning Commission and City Council make specific findings, based upon the project proposal, that the conventional housing would be as affordable as the manufactured housing types over both the short and long term.

To ensure continued affordability, one option that the City could pursue is the requirement for the developers who exercise the conventional housing option to enter into an affordable housing agreement with the City. This agreement could

define income ranges for continued affordability and explain how it could be ensured.

- 2.3-I11 Require a master plan (P.U.D., Policy Plan or other document that can adequately address development standards and provision of urban services including roads, water, sewer and drainage facilities, and parks and schools) for the 122± acres south of old Alamo Drive, north of the realigned Alamo Creek channel and west of Leisure Town Road. *<Modified by Resolution No. 1991-T-2 (GP-1-91)>*

This master plan should consider the future development of the "Vanden" Policy Plan area in determining the location of infrastructure.

- 2.3-I12 In the portion of the Vanden Policy Plan area south of Foxboro Parkway and west of Vanden Road, the minimum lot size shall be 10,000 square feet.

Southwest Sector

- 2.3-I13 Require a policy plan for development of the approximately 99-acre area south of I-80, west of Alamo Creek and east of the Pena Adobe park to be prepared to provide for residential and commercial uses, permanent open space of the hillsides above the water service line or on slopes of 25 percent or greater, and to provide for an area of approximately 20 acres of floodplain west of the California Drive extension as a stormwater detention basin. The Policy Plan shall provide for the transfer of residential density from the storm detention/flood overflow area to the developable portion of the site. The detention basin area may also be developed for limited recreation use as a playfield. The portion of this site above the water service line and/or on slopes of greater than 25 percent shall be designated as Open Space, with the remainder designated Low-Density Residential.

West Valleys South Sector

- 2.3-I14 Require that the policy plan for the Lower Lagoon Valley facilitate development of a business park of regional significance and "upper-end" housing by including the following requirements:
- o High standards of community design shall be established, addressing building design and landscaping, streetscape character and public amenities.

- o Ridges and slopes of 25 percent and greater shall remain undeveloped in order to maintain agricultural grazing areas, protect the public health and safety and to provide for community separation and open space, except that a limited area of golf course development may be permitted.
- o Business Park and Highway Commercial development of the highest standard of quality, conforming to design criteria intended to protect view corridors, and the open space feel of the valley. Design standards shall be established for building size, material, and design, site coverage and placement, street design and landscaping, and public amenities.
- o A permanent view corridor will be established to protect the view of Lagoon Valley Lake and the hills which provide a backdrop for the lake.
- o On the valley floor, the sense of open space shall be preserved, and development shall be set back from I-80 and beyond a 100-foot landscaped buffer. Development shall not completely obstruct views of the surrounding hills.
- o Business Park and Commercial development shall be designed to accommodate employee-service commercial uses.
- o Development shall enhance the recreational potential of the area.
- o Residential development shall be limited to 730 units and shall be integrated with a golf course. There shall also be a recreation complex.
- o Detention of floodwater shall provide for all lost floodwater storage and incremental increases in runoff, and total retention shall reduce downstream flows during peak-storm conditions to not more than 90 percent of existing conditions.
- o A financing mechanism for all public facility improvements shall be established before development occurs.

Central Sector

- 2.3-I18 The second and final phase of the Spring Valley project shall not be developed until the Wykoff water system is adequately improved in accordance with the plans approved by the City. Ridges and slopes of 25 percent and greater shall remain undeveloped and designated as Urban Open Space in order to maintain agricultural grazing areas, protect the public health and safety and to provide for open space.

Other Special Study Areas

- 2.3-I15 The City Council may establish "Special Study Areas" where the resolution of circulation problems or land use issues will require detailed study and public review beyond the scope of the General Plan update process. Three special study areas are established in this General Plan and described below. Development of lands having an immediate and direct impact on these Special Study Areas shall not occur until a plan to mitigate the identified problems to an acceptable level has been adopted by the City Council.
- o **East Monte Vista at the Nut Tree.** The narrow right-of-way between I-80 and the Nut Tree building and the substandard freeway ramps and over-crossings in this area prevent adequate circulation capacity to allow full development of the area. Alternatives to be examined include realignment of East Monte Vista, redesign of the freeway ramps, and land use adjustments.
 - o **Harbison Drive at I-80.** Left turn movements from Harbison will result in an unacceptable traffic level of service at certain times. Alternatives to be studied include new or redesigned freeway interchanges, and improvement or redesign of roadways and intersections that impact those interchanges.
 - o **Orange Drive at Leisure Town Road.** Traffic volumes at this intersection will exceed roadway capacity even after significant roadway expansion and intersection improvements. The I-80/Leisure Town Road interchange is also an impacted site which is closely related to this intersection. Alternatives to be studied include reducing land use intensities, eliminating certain commercial sites and not extending Orange Drive east of Leisure Town Road.

Special Performance Option

- 2.3-I16 The City Council may establish a special performance option (SPO) as part of an amendment to the Land Use Element if the Council finds that there is substantial public benefit to the provision of an alternative land use for a specific area within the community. In adopting an SPO, the City Council shall incorporate conditions applicable to the alternative land use, may establish a maximum time frame for the development of the alternative land use and shall approve the SPO subject to a specific development plan. If the alternative land use is not developed within the established time frame, the approval of the alternative land use shall expire and the original land use designation for the property shall apply.

It is intended that the SPO policy be used on an infrequent basis where the provision of public facilities to adequately service the alternative land use can be demonstrated. Any SPO shall be found to be consistent with the policies of the City's General Plan, based upon specific development plans for the property involved.

2.4 LAND USE CLASSIFICATIONS

The land use categories on the General Plan Diagram are abbreviated from the land use classifications described below. Zoning regulations to be adopted or revised must be consistent with the General Plan and will contain detailed use regulations.

More than one zoning district may be consistent with a General Plan land use classification. For example, land intended for future urban use may retain agricultural zoning while under Williamson Act contract, and more than one unit type may be established within an area designated for Residential Estate with a density-range of 0.5 to 3 units per gross developable acre.

Land use classifications in policy plans may be more detailed than those on the General Plan; however, all development must be consistent with the policies of the General Plan.

The Implementation Chapter contains a specific guide for consistency of land use designations with zoning designations. This table, on page 11-2, should also be referred to in determining zoning consistency and land use intensity for the various land use categories.

Residential Land Use Classifications

The Plan includes nine residential categories, each establishing a different minimum and maximum number of units per gross developable area. The residential densities described below are given as a range of units per gross developable acre (site area less area occupied by nonresidential uses, area of slope at or over 25 percent, creekways, flood channels, hazardous lands, and areas above the water service elevation). The number of units permitted will be further modified by the zoning district, a policy plan and any applicable overlay district. Estimates of future population density are based on the mid-point of the residential density range and projections of an average household size of 2.6 persons per dwelling unit. (See Figure 2-1 [Major Ridges and Creeks] and Figure 9-3 [Flood Hazard].)

Existing neighborhoods include some residences built at densities outside the ranges specified here. The Plan does not imply that such development should be replaced or treated as nonconforming uses by the City's Zoning Ordinance. New development may be approved at densities above the minimum density listed in Table 2-2 only if there are amenities, an affordable housing component, or compensating public benefits to justify such a density.

The 25 percent density bonus required by State law for specified shares of affordable or lower income senior housing is in addition to the densities listed. (See Policy 2.5-I7, Housing Opportunity Areas). Greater bonuses may be granted for senior housing that meets criteria established in the City's Zoning Ordinance.

TABLE 2-2
RESIDENTIAL LAND USE

	Density Range (units/gross developable acre) ^a	Assumed Units at Plan Buildout ^b
Rural residential	0.1 - 0.4	60
Residential estate	0.5 - 3.0	2,300
Golf course residential community	1.0 - 2.0	730
Residential low density	3.1 - 5.0	22,014
Residential low-medium density	5.1 - 8.0	2,529
Manufactured housing park	6.0 - 10.0	1,503
Residential medium density	8.1 - 14.0	3,435
Residential high density	14.1 - 20.0	6,878
Residential urban high density	20.1 - 36.0	700
Total		40,149

Notes: ^aAssumes new construction occurs at mid-point of density range.

^bAssumes 25% Moderate Density and 20% High Density component in new standard development areas, 20% Moderate Density component in West Valleys, Rice/McMurtry areas.

HOUSING UNIT MIX

	Number of Units	Percent of Total Units
Single Family ^c	25,104	62.5%
Moderate Density ^d	7,467	18.6%
High Density ^e	7,578	18.9%

Notes: ^c"Single Family" consists of Rural Residential, Residential Estates, Gold Course Residential and Residential Low Density.

^d"Moderate Density" consists of Residential Low-Medium Density, Manufactured Housing and Residential Medium Density.

^e"Residential High Density", also referred to as "Apartment-type units," consists of Residential High Density and Residential Urban High Density.

The purposes of each of the residential land use classifications are as follows:

- o **Rural Residential.** To provide opportunities for rural living on lots ranging in size from 2-1/2 to 10 acres. Animal husbandry and limited horticulture would be permitted, subject to appropriate standards.
- o **Residential Estate.** To provide opportunities for very low-density residential land use, compatible with the topography and public service capacities. The minimum lot size is 10,000 square feet, and larger lots may be required in specific areas by policy plans and/or zoning regulations because of topography or limited public service capacities. The base density is 0.5 units per gross developable acre, and the maximum potential density is 3 units per gross developable acre.
- o **Golf Course Residential Community.** To provide opportunities for residential use in conjunction with a golf course development, subject to appropriate standards. A golf course is a required component in any development project under this classification. The average base density is 1 unit per gross developable acre, and the maximum potential density is 2 units per gross developable acre; and units may be clustered. Policy plan approval is required.
- o **Residential Low Density.** To provide opportunities for single-family residential use in neighborhoods on lots ranging in size from 6,000 to 10,000 square feet, subject to appropriate standards. The base density is 3.1 units per gross developable acre, and the maximum potential density is 5 units per gross developable acre.
- o **Residential Low-Medium Density.** To provide opportunities for single-family, duplex, and clustered housing in neighborhoods on lots ranging from 4,500 square feet to 6,000 square feet, subject to appropriate standards. The base density is 5.1 units per gross developable acre, and the maximum potential density is 8 units per gross developable acre.
- o **Residential Medium Density.** To provide opportunities for multiple residential uses, including duplexes, townhouses, multi-dwelling structures, or cluster housing with landscaped open space for residents, and apartments, subject to appropriate standards. The base density is 8.1 units per gross developable acre, and the maximum potential density is 14.0 units per gross developable acre.

- o **Residential High Density.** To provide opportunities for higher density multiple residential uses, including townhouses, condominiums, and apartments, subject to appropriate standards. The base density is 14.1 units per gross developable acre, and the maximum potential density is 20 units per gross developable acre.
- o **Residential Urban High Density.** To provide opportunities for an intensive form of residential development in and adjacent to Downtown, including townhouses, condominiums, and apartments with relatively high land coverage, subject to appropriate standards. The base density is 20.1 units per gross developable acre, and the maximum potential density is 36 units per gross developable acre.

RUHD units may be located in upper floors of commercial buildings in the area bordered by Cernon Street and the Cernon/West street alley, East Monte Vista Avenue, Depot Street and Stevenson Street. RUHD units may also be allowed on ground or upper floors of mixed-use buildings in those areas identified as "RUHD" on the land map. The Downtown Policy Plan shall contain additional criteria for the location of RUHD units.

- o **Manufactured Housing Park.** To provide opportunities for affordable housing using manufactured or modular components on sites developed as a planned unit, subject to appropriate standards. This classification is intended for both parks with rental spaces for manufactured housing (mobile homes) and parks where the spaces are individually owned. The base density is 6 units per gross developable acre, and the maximum potential density is 10 units per gross developable acre.

Estimates of the number of units that will exist at full development (Table 2-2) were prepared as a basis for projecting traffic, school enrollment, retail sales, and park needs. Population at full development, assumed to be reached in 2010, is projected at 2.6 persons per unit.

Commercial Land Use Classifications

Six commercial land use designations are shown on the General Plan diagram. In each of these the maximum intensity of development is generally limited by a floor area to site area ratio (FAR) of 0.3. (In the Downtown, a higher FAR is allowed.) Exceptions to the FAR limits may be granted for areas with low employee densities, such as wholesaling and distribution, or low peak-hour traffic generation, such as a hospital. Further, the FAR may be adjusted

in specific policy plan areas, based upon intensity of use and availability of public facilities, infrastructure and projected traffic levels of service. It is assumed that Office uses generate one employee per 275 square feet of floor space, and Commercial uses generate 1 employee per 500 square feet of floor space.

- o **General Commercial.** This designation provides for a full-range of uses, including retail stores, food and drug stores, auto sales, businesses selling home furnishings, apparel, durable goods, and specialty items. Support facilities, such as entertainment and eating-and-drinking establishments, would also be permitted.
- o **Neighborhood Commercial.** Small sites for neighborhood commercial centers, generally anchored by a grocery store with convenience uses serving the immediate area. New sites shall be from 4 to 10 acres in size.
- o **Highway Commercial.** This designation adjoining Interstate highways includes specialty retailing, restaurants, hotels/motels, and commercial recreation and entertainment, designed to attract primarily visitor business and shopping.
- o **Commercial Office.** This designation provides sites for limited retail commercial development and office development. It is intended for transition areas between commercial and residential areas. Subcategories on the Plan Diagram distinguish between Commercial Office where support retail and service uses are permitted and Professional Office where no retail uses are allowed.
- o **Downtown.** The Downtown Plan area includes a mix of residential, commercial, civic, and recreational uses appropriate for the area, consistent with the Downtown Policy Plan and subject to a maximum FAR of 3.0 for the core area in the parking district and a range of 1.0 to 2.0 elsewhere in Downtown. The area included within the Downtown is the Downtown Development Area plus the site of the Basic American Food Plant.
- o **Commercial Service.** This designation would provide areas for heavy commercial uses, such as lumber yards and auto-related services. Limited retail would be permitted in areas given this designation, but the primary function of Commercial Service would be to provide for commercial uses not permitted in other areas because they attract heavy vehicles or otherwise have adverse impacts on other uses.

Business and Industrial Land Use Classifications

Two categories of industrial land use are shown on the General Plan Diagram. It is assumed that Business Park uses generate one employee per 450 square feet of floor space, and Industrial Park uses generate one employee per 750 square feet of floor space. Business Park uses, under certain circumstances, may generate one employee per 275 square feet of floor space if the Business Park is utilized solely as high intensity office-technology space.

- o **Business Park.** This designation applies to sites in a landscaped setting for office centers, research-and-development facilities, and, under appropriate conditions, medical and institutional uses. Secondary uses may include limited industrial activities and small-scale warehousing and distribution operations and limited retail sales accessory to these areas. Commercial uses and services for employees and businesses (i.e. delicatessens, child care, dry cleaners, branch banks, etc.) shall be required, as a means of reducing trips and vehicle miles traveled. These uses shall be centrally located and have adequate pedestrian access. The commercial uses and services shall be a ancillary, rather than a primary, use. Policy plans may additionally allow for commercial development. This designation is intended for parcels of land that would be developed as a unit, and for developments that would be more compatible with other types of land uses than are permitted under the other industrial designations. The FAR shall generally be limited to 0.3. The FAR may be adjusted in specific policy plan areas, based upon intensity of use and availability of public facilities, infrastructure and projected traffic levels of service.
- o **Industrial Park.** This designation provides sites for industrial uses that require locations on major transportation lines, and large areas for structures, truck loading and parking, and space for storage of products, equipment, and materials. It also would accommodate light manufacturing. Commercial uses and services for employees and businesses (i.e. delicatessens, child care, dry cleaners, branch banks, etc.), shall be required, as a means of reducing trips and vehicle miles traveled. These uses shall be centrally located and have adequate pedestrian access. The commercial uses and services shall be an ancillary, rather than a primary, use. Policy plans may additionally allow for limited office and commercial uses. This designation is intended to protect Vacaville's established industrial areas, which constitute a major resource, from encroachment by non-industrial retail and commercial

uses that could locate elsewhere. The FAR shall generally be limited to 0.4. The FAR may be adjusted in specific policy plan areas, based upon intensity of use and availability of public facilities, infrastructure and projected traffic levels of service.

Other Land Use Classifications

- o **Public/Institutional.** This designation would include the Civic Center, California Medical Facility, Intercommunity Hospital and related medical facilities, other public facilities, large institutions, and utilities. The FAR shall generally be limited to 0.3. The FAR may be adjusted in specific cases, based upon the intensity of use and availability of services, infrastructure and projected traffic levels of service.
- o **Schools.** Existing and proposed public elementary, junior high and high schools are shown on the Plan maps. These are subject to review by the school districts and ultimate locations may not be the same as proposed.
- o **Private Recreation.** This designation includes country clubs, free-standing golf courses, recreational vehicle (RV) parks, riding stables, campgrounds, and theme parks. The FAR shall generally be 0.1, but may be adjusted in specific cases based upon inclusion in a policy plan and the availability of public services, infrastructure and expected traffic levels of service.
- o **Public Parks.** Existing and proposed public park sites.
- o **Urban Open Space.** Creek corridors and undeveloped public open space corridors and undeveloped open space areas for public use. This includes certain abandoned railroad rights-of-way and the transmission line corridors. This land use category also allows for agricultural uses.
- o **Greenbelt Buffer (Transitional Zone).** This designation is intended for transitional uses compatible with urban development on one edge and intensive and/or irrigated agriculture on the other. These include public or private recreational facilities, storm-detention ponds, tree farms, wholesale nurseries and other specified uses in the appropriate policy plan. The base land use in the Greenbelt Buffer shall be that of the adjoining residential land. Transfer of the urban density from the land in the Greenbelt Buffer to the remaining portion of the residential site is permitted. Where urban

land uses abut grazing land, buffers shall be evaluated on a case by case basis. The FAR shall generally be 0.01, and only be increased in specific instances where the City Council finds that a higher ratio will not substantially reduce the open space utility of the buffer zone. Only structures that are non-occupied and that: (a) are necessary to the maintenance of agricultural operations (i.e., pump stations), or (b) that form a portion of a landscaped separator (i.e., a sound/visual wall), or (c) that serve a public recreation use (i.e., parks), or (d) that are adjuncts to a public health and safety use of the buffer zone (i.e., floodwater detention facilities) shall be allowed in this category.

- o **Agriculture/Open Space.** Existing and proposed permanent open space in public or private ownership, including land to be retained for agricultural uses during the 20-year planning period, hillsides and ridgelines, creek and utility corridors outside the planned urban area. Land exceeding 25 percent slope and hazardous land is designated open space. (See Open Space and Safety elements.)
- o **Community Separator Overlay.** Lands to be restricted to agricultural or other defined open space uses through zoning, joint powers agreements between Vacaville and adjacent cities and/or through acquisition of development rights by a public or nonprofit agency. These areas are or will be under study as agriculture or greenbelt buffer. Other appropriate land uses may be identified as a part of these studies. The General Plan designates the underlying land use in these areas as Agriculture/Open Space.

2.5 RESIDENTIAL AREAS

Table 2-3 shows housing units by type for each sector. Dwelling unit totals are considered likely based on Plan designation, but do not represent minimums or maximums. The General Plan embodies a belief that Vacaville should retain its single-family residential character, so new multifamily sites are designated near Downtown and east of I-505. Other new multi-family sites are anticipated in new growth areas, subject to policy plans. Recently built single-family homes are typically on lots of 6,000 to 8,000 square feet. New apartments generally range from 14 to 20 units per gross acre for projects of 100 to 270 units. The Plan broadens housing choice further by providing for townhouses and zero-lot line units, as well as sites for custom homes and golf-course residential communities.

TABLE 2-3
HOUSING UNITS BY SECTOR

Sector	Existing January 1, 1989	Additional Development ^a	Holding Capacity
Central	12,415	735	3,150
Northwest	2,931	832	3,763
North	2,332	2,850	5,182
Northeast	41	1,574	1,615
East	3,396	4,000	7,396
Southeast	5,603	2,759	8,362
Southwest	3,082	812	3,894
West Valley South	3	727	730
West Valley North	88	73 ^b	161
South	1,136	4,840	5,976
Total	21,027	19,202	40,229

Notes: ^aAdditional dwelling units are calculated from the midpoint of the residential density categories.

^bAssumes current County agricultural zoning for unincorporated area.

Guiding Policies

- 2.5-G1 Maintain the single-family home as the preponderant dwelling type and prevent the intrusion of incompatible uses into residential neighborhoods.
- 2.5-G2 Provide a citywide housing mix of approximately 60 percent single-family detached, 20 percent single-family with zero lot lines, duplexes, triplexes, mobile homes, and townhouses, and 20 percent garden apartments and condominiums. To achieve this approximate housing mix citywide, new development areas must contain a larger component of certain housing types, as specified in Table 2-2.
- 2.5-G3 Continue to restrict apartments to certain locations.
- See Figure 2-4.*
- 2.5-G4 Broaden the choice of type, size, and affordability of single-family homes.
- 2.5-G5 Encourage creative site design, and architectural quality and variety by a design approval process that provides for a variety of single-family houses and designs and/or multi-family designs.
- 2.5-G6 Provide for a transition between higher-density and lower-density housing and require buffers between residential and incompatible land uses.
- 2.5-G7 Ensure that new residential development shares the cost of providing services and amenities for Vacaville residents.
- 2.5-G8 Locate major residential areas with easy access to employment concentrations.

Implementing Policies

(See also Section 2.1, Community Form and Image, and Section 2.2, Growth Strategy.)

- 2.5-II Amend the Zoning Ordinance to establish residential densities within the ranges designated on the General Plan map based on the characteristics of each site and its surroundings and on General



Restricted Area - Apartment Type

*See Vacaville General
Plan Diagram for
correct (i.e. existing)
alignment of
Pleasant Valley and
Cherry Glen roads.*

500' 2000' 5000'



One mile



Vacaville - Prohibited Locations for Apartment

Figure 2 - 4

Plan policies. Require that all development be subject to site development and design review.

There is no presumption that development at the high end of a prescribed density range will be approved or not approved, but the average density is expected to meet or exceed the low end of the range, unless there are significant site constraints.

- 2.5-I2 Establish residential design guidelines to encourage residential subdivisions that are sensitive to topography, limit use of mass grading, provide for functional and aesthetically pleasing neighborhoods, and a variety of housing sizes. Lot sizes and building bulk shall be a component of design guidelines.

The guidelines should include illustrations of good design and standards for building siting, landscaping, energy conservation, common areas and community facilities. A separate section should address the issue of infill development and the need to ensure compatibility with existing neighborhoods.

- 2.5-I3 In any development exceeding 400 units, require a mix of development types and/or densities, including a component of larger lots and homes (at least 10 percent of the total).

- 2.5-I4 Establish requirements for private and common open space and recreational amenities in other projects that do not have standard, single-family sized lots.

- 2.5-I5 Encourage high density housing in the Downtown core area on the upper-floors of mixed-use buildings and in mixed-use projects. Locations along arterial streets are preferred.

The intent of this policy is to allow residential use as a secondary rather than a primary downtown land use.

- 2.5-I6 Locate lower-density housing at the edge of the planned urban area to buffer rural residential from higher urban density housing.

- 2.5-I7 Establish regulations to encourage construction of affordable housing in Housing Opportunity Areas by allowing increases in density over the maximum otherwise permitted, consistent with State law. (See also Housing policy 7.1-I1)

Eligible land use categories, criteria for determining allowable density increases, affordability requirements, application and review procedures, and other incentives required by State law should be defined in the Zoning Ordinance. Potential Housing Opportunity Area sites generally should be located on flat land with slopes less than 10 percent within the existing urban area so as not to create additional urban service demands at the periphery. Projects should be designed to be compatible with surrounding neighborhoods in terms of scale and character.

- 2.5-I8 Establish regulations requiring buffers between residential and agricultural areas and between residential areas and industrial parks. (See Figure 2-5.) The minimum separation shall be as follows:

Between residential and agricultural uses:	500 feet
---	----------

(Where the Greenbelt Buffer borders the Cypress Lakes Golf Course, the width shall be determined by the noise and safety buffer requirements for the Southern Pacific Rail Road. See also Policy 10.6-I14 in the Noise Element.)

Between residential, business and industrial park uses:	200 feet
--	----------

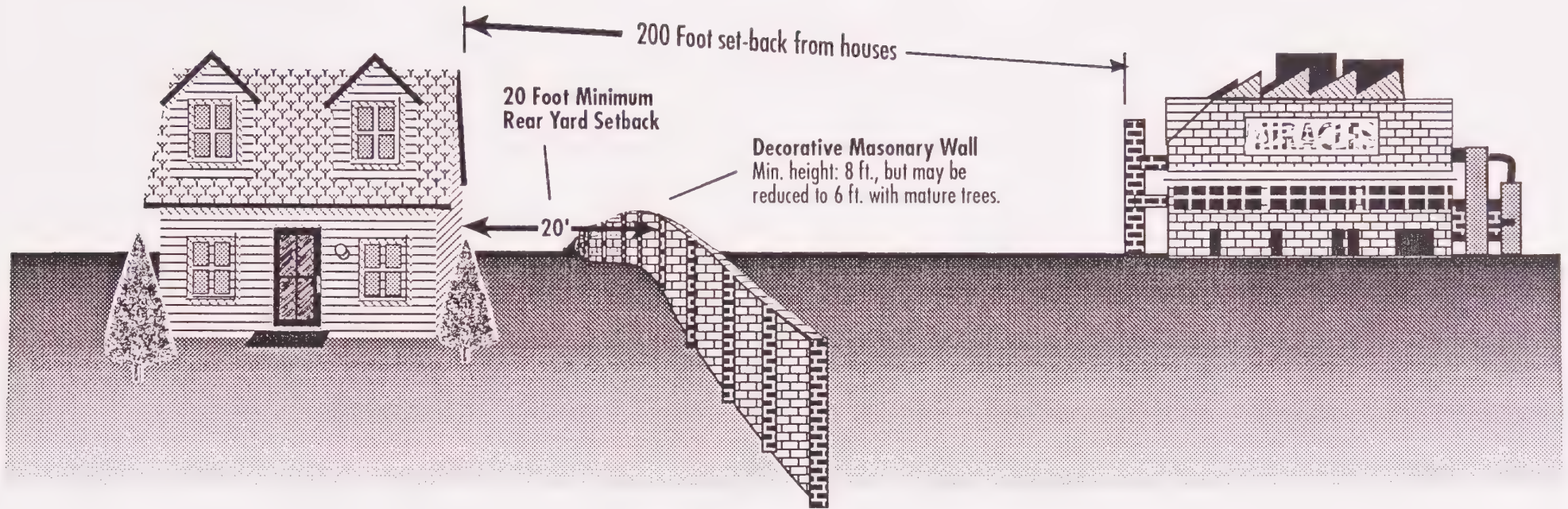
Standards for walls and landscaping and compatible uses permitted within the buffer area should be defined in the Zoning Ordinance and Policy Plans. (See Policy 2.3-I17 regarding the Maris Industrial Park.)

- 2.5-I9 Limit residential development in areas impacted by noise and potential hazards from Nut Tree Airport to uses identified in the Solano County Airport Land Use Commission Airport/Land Use Compatibility Plan and amended zoning regulation as required.

Residential - Industrial Buffer

Figure 2-5

A. Buffer Requirements



B. Responsibility for Providing Buffer



- 2.5-I10 Require impact fees from developers, as appropriate and necessary, for provision of community facilities and services. Maintain the existing policy that development "must pay its own way."

Examples of contributions may include payments or land dedication and maintenance for:

- o Recreation facilities and programs;*
- o Educational facilities and programs;*
- o Cultural facilities and programs;*
- o Traffic and transportation facilities and services;*
- o Other government facilities and services;*
- o Flood control facilities;*
- o Public safety facilities (police, fire, emergency medical services); and*
- o Open space acquisition in City separators.*

- 2.5-I11 Review and revise the City's capital improvement program annually to ensure that public improvements will be consistent with Plan policies for residential areas and that progress is made toward implementing these policies.

- 2.5-I12 Establish regulations to encourage neighborhood conservation and enhancement by requiring adequate property maintenance and elimination of nuisances and unsightly conditions.

Such "anti-ugly" ordinances have been effective in many California communities. They can complement efforts of individuals and organized citizens in maintenance and upgrading of existing residential neighborhoods.

- 2.5-I13 Require that all residential development meeting one or more of the following criteria be subject to discretionary review as a planned unit development or similar procedure:
- o Multi-family projects of 10 units or more;
 - o Mixed housing types (detached vs. attached, etc.);
 - o Mixed use;
 - o A location potentially subject to a natural or man-made geologic hazard including hillside areas (see Safety Element); or
 - o Any project exceeding the minimum density with the land use designation or with 50 units or more.
- 2.5-I14 Design residential neighborhoods to avoid fronting on major streets expected to carry inter-neighborhood or community traffic.
- 2.5-I15 In new outlying areas that are required to have policy plans, development shall only occur as part of a coordinated plan for land uses, public facilities, and public services. Individual, piecemeal developments within these areas are not permitted.

2.6 RETAILING AND COMMERCIAL SERVICES

Creating a strong Downtown has been a long-standing priority. The Downtown Development Program is based on commitments of property owners and the City to work together in a public-private partnership to build a business district that will be recognized as Downtown -- the symbolic core of the City, with comparative shopping opportunities, and offices for professional activities and business and personal services. Residential uses that contribute to the revitalization of the Downtown area are encouraged, including high-density housing and renovation of surrounding neighborhoods. The General Plan includes 820 acres for neighborhood and community shopping centers and 660 acres for highway commercial areas along I-80.

Commercial services, such as auto repair and building-materials sales, will be located in the Service Commercial areas. Residents and in-commuters will need their cars serviced, residents will need plumbers, and businesses will need printers. The Plan designates 107 acres of land for service-commercial uses. The overall distribution of commercial land use, including offices, by sector is shown in Table 2-4.

TABLE 2-4
COMMERCIAL LAND USE BY SECTOR (ACRES)

Sector	Existing January 1, 1989	Draft Plan	
		Additional Development	Holding Capacity
Central	96.8	81.8	178.6
Northwest	18.3	9.9	28.2
North	12.9	51.3	64.2
Northeast	67.7	716.6	784.3
East	68.6	602.1	670.7
Southeast	39.4	34.5	73.9
Southwest	80.7	122.0	202.7
West Valley South	11.6	60.4	72.0
West Valley North	7.5	.3	10.5
South	4.0	1.2	5.2
Total	407.5	1,682.8	2,090.3

Guiding Policies

- 2.6-G1 Encourage improvement and redevelopment of the older Downtown area with new specialty shops, restaurants, major stores, offices, and supporting commercial uses, but retain the small-town scale and character conveyed by development along Main Street with an appropriate transition between commercial and adjoining existing residential areas.
- Office uses serving local residents should be encouraged to locate Downtown rather than in outlying commercial centers because they can contribute to the economic vitality of Downtown.*
- 2.6-G2 Provide neighborhood and community shopping centers of sizes and at locations that will maintain both choice and convenience for shoppers as well as the trade area buying power needed to support quality design, maintenance and merchandising.
- The intent of this policy is to discourage a proliferation of small centers that could preclude the establishment of more efficient larger centers.*
- 2.6-G3 Locate shopping centers and neighborhood commercial facilities at the intersection of major thoroughfares, and, where appropriate, adjacent to multifamily housing, and minimize conflicts between commercial area and residences by requiring adequate buffers and screening. (See also Transportation Element policy 6.2-II and 6.2-I3 on use of median strips and frontage roads.)
- 2.6-G4 Encourage similar and compatible types of commercial businesses to cluster together in appropriate locations to provide comparison shopping.
- 2.6-G5 Provide sufficient space to meet the need for commercial services and commercial recreation that can be supported by Vacaville's residents, businesses, and private workers. (See also Parks and Recreation Element policy 4.6-G6)
- 2.6-G6 Encourage the location of visitor-serving highway commercial services at appropriate locations along the I-80 and I-505 corridors.

- 2.6-G7 Ensure that new development is compatible with the character and scale of existing and planned adjoining land uses.
- 2.6-G8 Provide off-street parking facilities close to Downtown retail areas.
- Other policies relating to circulation are found in the Transportation Element.*
- 2.6-G9 Maintain the quality of public services by requiring all new commercial development to meet its share of public costs.
- 2.6-G10 Provide new commercial sites in residential areas only in proportion to additional demand so that existing sites are not abandoned.
- 2.6-G11 Do not develop highway commercial areas for uses of primarily local interests.
- 2.6-G12 Apply the highest development standards to highway commercial uses to assure that characteristics of major entrances to the community are not diminished by incompatible uses or inharmonious site development concepts.

Implementing Policies

(See also Community Form and Image and Growth Strategy sections.)

- 2.6-II Establish commercial design guidelines to govern new construction and major exterior alterations and additions within the Downtown area and in neighborhood and community shopping centers.
- The guidelines should set a coherent design concept but avoid imposing a rigid, stylistic requirement for individual buildings. Instead, a range of architectural expression should be allowed. In shopping centers, free-standing uses, such as service stations, banks and restaurants, should be compatible in design and materials with the main building complex.*

- 2.6-I2 Continue a program of public improvements to support revitalization of the Downtown area using all potential funding sources, including redevelopment funds.
- 2.6-I3 Designate the Basic American Foods plant site for General Commercial development and link the Basic site and Downtown with pedestrian and vehicular connections.
- 2.6-I4 Integrate Andrews Park and the Ulatis Creek corridor into plans for Downtown.
- 2.6-I5 Limit neighborhood commercial sites generally to between 4 and 10 acres, and consider setting specific limits on the size of establishments other than food stores to preserve opportunities for local-serving businesses and to exclude region-serving stores likely to generate high traffic volumes.
- 2.6-I6 Exclude all offices not accessory to a commercial-service business from commercial-service areas.
- Were both uses to be permitted, office users desiring lower rents than in office areas could displace commercial services.*
- 2.6-I7 Review development standards and use regulations for all commercial districts to determine whether they are consistent with General Plan land use categories, minimize conflicts with other land uses, and provide adequate protection for adjacent residential neighborhoods. Establish standards and guidelines for commercial recreation and private recreation to ensure land use compatibility.
- 2.6-I8 Revise the Zoning Ordinance and Policy Plans to establish limits on building intensity consistent with Plan policies on floor area ratios.
- 2.6-I9 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.
- 2.6-II0 In new outlying development areas that are required to have policy plans, development shall only occur as part of a coordinated plan for land uses, public facilities, and public services. Individual, piecemeal developments within these areas are not permitted.

2.7 OFFICES

Regional offices contribute to the economic development of the City. They will support the development of hotels, restaurants and specialty shopping, building up the whole of Vacaville. The market for office space in Solano County is quite competitive, and large office complexes historically have not been located in Vacaville. However, the City intends to compete in this regional market and expects the potential for major office development to improve in the future. The Plan provides for an additional 432 acres of land for office space.

Guiding Policies

- 2.7-G1 Encourage new regional and local-serving office development at appropriate locations.

Regional offices contribute to the economic development of the City; they also can expand job opportunities for residents, which will reduce out-commuting.

- 2.7-G2 Allow offices serving local needs within the community on specific "office-only" designated sites and in neighborhood commercial centers. Encourage local-serving offices to locate Downtown. (See also policies on business parks where office uses also are permitted.)

Implementing Policies

(See also Community Form and Image and Growth Strategy sections.)

- 2.7-I1 Establish two categories for office use in the Zoning Ordinance (commercial-office and professional-administrative office) and policy plans, and set limits on building intensity for office use consistent with Plan policies on floor area ratios.
- 2.7-I2 Establish office design guidelines to govern new construction and alterations and additions, including criteria for building massing, exterior materials, landscaping, and location of parking.
- 2.7-I3 Prohibit offices as a primary use where the Plan designation is Commercial Services, Neighborhood Commercial, and Highway Commercial.

The intent of this policy is to encourage new offices to locate Downtown and in business parks or where they can provide a transition between retail commercial uses and adjacent residential neighborhoods.

- 2.7-I4 Allow supporting retail and business services within commercial office zones to facilitate office development.
- 2.7-I5 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.

2.8 BUSINESS AND INDUSTRIAL PARK DEVELOPMENT

Industry has been the major employer in Vacaville since its founding. The existing firms produce a range of goods, from food products to manufactured housing and medical products. The land presently occupied by many of these firms should be adequate for their future needs; in fact, many industrial parks have sufficient land to accommodate significant expansion of existing operations. Overall, 1,510 acres are reserved for industrial and business parks. The distribution by planning sector is shown in Table 2-5.

The future of industrial and business parks in Vacaville should be one of change as well as growth. The trend toward light-industrial and research-and-development facilities and office business parks is likely to continue and should be encouraged. Whatever shape and course Vacaville's industrial sector takes in the future, the City has sufficient land to meet its future needs. It also can meet growing demand for regional office sites in a landscaped environment.

TABLE 2-5
BUSINESS AND INDUSTRIAL LAND USE BY SECTOR (ACRES)

Sector	January 1, 1989 Existing	Additional Development	Holding Capacity
Central	38.5	(38.5)	3.4
Northwest	0.0	0.0	0.0
North	9.0	(9.0)	0.0
Northeast	203.2	1,142.2	1,345.4
East	22.6	111.1	133.7
Southeast	23.6	(23.6)	0.0
Southwest	5.7	(5.7)	0.0
West Valley South	0.0	304.0	304.0
West Valley North	0.0	0.0	0.0
South	10.1	(10.1)	0.0
Total	312.7	1,537.8	1,786.5

Note: Includes Industrial Park and Business Park acreage. Existing acreage is land developed as of January 1, 1990.

Guiding Policies

- 2.8-G1 Continue marketing efforts and assistance to promote the stimulation of sound economic development of Vacaville.
- 2.8-G2 Protect the supply of land suitable for industrial purposes and, in cooperation with Solano County, actively promote the development of appropriate industrial uses.

Industrial and business parks are an important source of employment and make a major contribution to the economic health of the Vacaville community and the economic health of the region.

- 2.8-G3 Retain existing industry, and allow existing industrial uses to expand, consistent with other General Plan policies.
- 2.8-G4 Encourage new, clean, employment-intensive industry to locate in Vacaville.
- 2.8-G5 Protect existing and new residential areas from adverse effects of new industry and, wherever feasible, of existing industry.
- 2.8-G6 Limit the intensity of industrial development in areas exposed to geologic and/or flood hazards.

Implementing Policies

(See also Community Form and Image and Growth Strategy Sections.)

- 2.8-II Establish use regulations, development standards, and minimum performance standards in the Zoning Ordinance consistent with the General Plan land use categories and community character.

Performance standards will protect persons, property, and natural resources from industrial hazards, pollution, harmful particulate matter, noise, and other potentially adverse impacts. Flexibility in lot sizes and sub-area development within industrial parks should be permitted to accommodate a wide range of uses.

2.8-I2 Designate land in appropriate locations for Industrial Park and Business Park development and encourage clustering of industrial development. Allow compatible commercial uses and employee-serving uses only in accord with an approved policy plan.

2.8-I3 Adopt setback, landscaping, and screening requirements for industrial development to protect adjacent non-industrial uses. Include specific standards in Policy Plans for adequate physical and aesthetic separation of industrial business parks and residential land.

See Figure 2-5 and Policy 2.5-I8 on residential-industrial buffers.

2.8-I4 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.

2.8-I5 In new outlying development areas that are required to have policy plans, development shall only occur as part of a coordinated plan for land uses, public facilities, and public services. Individual, piecemeal developments within these areas are not permitted.

The Zoning Ordinance should include requirements for buffer areas between industrial uses and other uses, especially residential uses. Setback and landscaping requirements would establish standards for such buffers and, with screening requirements, would set standards for the appearance of industrial sites.

2.9 OTHER LAND USES

The Open Space Element includes guiding and implementing policies for agriculture and open space lands and the Greenbelt Buffer, while policies related to the community separator overlay are presented in Section 2.1, Community Form and Image. Policies addressing park and recreation facilities and urban open space are in Chapter 4; policies addressing utilities and public facilities, including schools, are in Chapter 5. Finally, the Safety Element includes policies related to hazardous lands and siting of critical facilities: utilities, hospitals, fire stations, police and emergency communication facilities, and bridges and overpasses.

3 OPEN SPACE ELEMENT

Agricultural open space provides Vacaville visual distinction from other communities and vital economic support. While all agricultural land is economically vulnerable to urban expansion, the prime soils of the Central Valley are relatively more valuable and support in Vacaville for preserving prime soils is stronger than in California metropolitan communities where agricultural preservation has failed. Plan policies attempt to strike a balance between the need for housing and the need for open space by establishing a specific urban service zone, and prime agricultural lands, hillsides and scenic ridges outside this zone.

Four types of open-space lands are identified in the State requirements for the Open Space Element: Open Space for the Preservation of Natural Resources, Open Space for the Managed Production of Resources, Open Space for Outdoor Recreation, and Open Space for Public Health and Safety. Any action by the City to acquire, dispose of, or regulate the use of open space lands in any of these categories must be consistent with the Open Space Element.

Agricultural lands not slated for development and lands falling into the four categories of open space listed above are mapped on the General Plan Diagram as open space. Policies for all types of open space are in Section 3.5. Other policies relating to open space are also included in the Land Use, Parks and Recreation, and Safety Elements.

3.1 OPEN SPACE FOR THE PRESERVATION OF NATURAL RESOURCES

In addition to its value as a visual resource, the Planning Area's open space includes oak woodlands, wildlife habitat, creeks, scenic hillsides, riparian habitat, and productive agricultural acreage. All of these areas qualify for protection as natural resource open space. The Conservation Element includes additional policies on natural resources preservation and management.

By defining specific limits for urban services, the Plan diagram protects open space for preservation of remaining natural resources. Areas designated for conservation of natural resources should not be converted to urban uses unless an overriding public purpose requires such use.

3.2 OPEN SPACE FOR THE MANAGED PRODUCTION OF RESOURCES

Agricultural Land: Agricultural lands in Upper Vaca Valley and east of Leisure Town Road represent open space for the maintenance of agricultural production. The majority of the acreage on the east side of the Planning Area is in the Agricultural Service Area and subject to Williamson Act contracts.

Figure 3-1 shows the classification of important farmland outside the City limits according to the Soil Conservation Service and California Department of Conservation.

Prime farmland offers the best combination of physical and chemical features for the production of agricultural crops, while farmlands of statewide importance have a good combination of such features, but do not require a minimum rooting depth or certain permeability. They also may hold more water, be more saline or alkaline, and have a moderate erosion hazard. Unique farmland is other than prime or of statewide importance, with lesser quality soils.

The City is committed to maintaining viable agricultural areas and, accordingly, establishes a specific agricultural service zone, as shown in Figure 2-3.

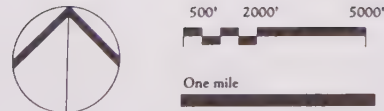
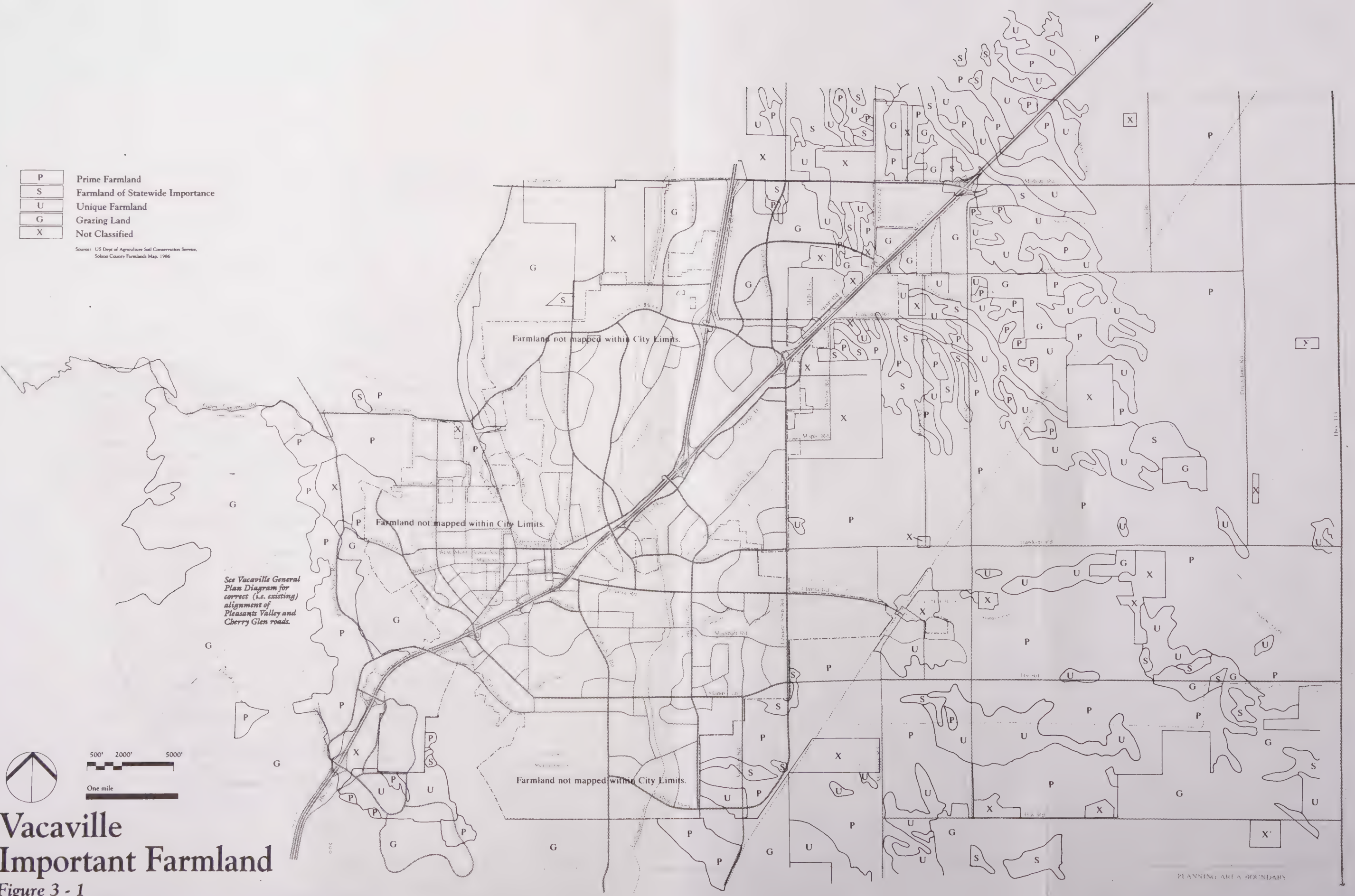
Mineral Resources: According to the U.S. Geological Survey, the Vacaville Planning Area contains limited mineral resources that are being extracted. Near the southern boundary of the Planning Area in the vicinity of Cement Hill, limestone deposits show evidence of some historic use. Stone quarries in the Vaca Mountains produced dimensioned and ornamental stone. Although the western hills contain sandstone and conglomerates which may be used for sands, gravel, and stone, none of these resources are currently being mined. Commercial extraction is not expected within the planning period, therefore policies and land use designations for mineral resource areas are not included in the General Plan.

3.3 OPEN SPACE FOR OUTDOOR RECREATION

The General Plan envisions a system of parks, trails, and open spaces that serve the existing residential need for recreational areas and provide a framework and focal points for future development. The proposed "City Park" and all other neighborhood and community parks are designated on the General Plan Diagram as Parks. Open Space areas along creeks and in the foothills can be utilized for passive recreation, walking, jogging, and hiking.

P	Prime Farmland
S	Farmland of Statewide Importance
U	Unique Farmland
G	Grazing Land
X	Not Classified

Source: US Dept of Agriculture Soil Conservation Service,
Solano County Farmlands Map, 1986



Vacaville
Important Farmland
Figure 3 - 1

The section on Parks and Recreation contains policies on park and recreation uses, facilities required, existing and proposed park sites (Figure 4-1), and bicycle, equestrian, and pedestrian paths and multipurpose trails (Figure 4-2 and Table 4-4).

3.4 OPEN SPACE FOR PUBLIC HEALTH AND SAFETY

The Safety Element, as well as this element, addresses management policies regarding areas deemed hazardous or potentially hazardous in the Planning Area. Slopes susceptible to landsliding due to steepness or other instability, creek beds and tributary streams with flooding potential, and areas subject to extreme fire hazard are mapped in the Safety Element to illustrate hazardous areas. Where appropriate, these lands that compromise open space for public health and safety have been designated open space on the General Plan Diagram. The Nut Tree Airport and Travis Air Force Base Land Use Plans also restrict areas to open space for safety reasons. Refer to Figure 6-4, which shows the area influenced by these plans. The actual plans should be consulted for specific land use restrictions.

3.5 OPEN SPACE POLICIES

(See also policies in the Land Use, Parks and Recreation, Conservation and Safety Elements.)

Guiding Policies

- 3.5-G1 Maintain open areas needed to retain stormwater and prevent flooding of urban or agricultural land.
- 3.5-G2 Retain major ridgelines and hillsides as open space.
- 3.5-G3 Preserve natural creek corridors of significance to the City.
- 3.5-G4 Maintain natural woodlands.
- 3.5-G5 Maintain a compact urban form and locate growth areas to minimize loss of agricultural resources.

- 3.5-G6 Minimize conflicts between urban and agricultural uses by establishing Greenbelt Buffers and community separators.

See also Policy 2.5-I8 on agricultural buffers and Policies 2.2-G1 and 2.1-I2 on establishing an urban service area boundary.

- 3.5-G7 Work with neighboring jurisdictions, and regional and state agencies in developing open space programs that will impact Vacaville. Coordinate Vacaville's open space policies with those other agencies whenever possible.

Implementing Policies

- 3.5-I1 Maintain agricultural production areas east of Leisure Town Road. In accordance with policies set forth in the 1980 General Plan, maintain agricultural production areas in Upper Lagoon Valley, Bassford Canyon and the Vaca Valley.

- 3.5-I2 Ridges and slopes at or exceeding 25 percent shall remain undeveloped in order to maintain agricultural grazing areas, protect the public health and safety, and to provide for community separation and open space.

This policy is designed to minimize destruction of natural land forms, reduce landslide risk, and preserve open space.

- 3.5-I3 Require that open space which is designated as a condition of development approval be permanently restricted to open space use by recorded map or deed.

- 3.5-I4 Establish standards for the management and maintenance of open space within and adjoining subdivisions.

Regulations should include standards to ensure control of potential hazards and mechanisms for repair of damage.

- 3.5-I5 Where possible, minimize cut-and-fill activities and disturbance of natural habitats and vegetation. At the minimum, revegetation of cut-and-fill on slopes should be required.

This policy requires revegetation as a condition of approval of new development. See also policy 2.1-I5. Slopes subject to grading in

this area can create landslide hazards, adversely affect stormwater run-off, and detract from the natural environmental quality of the area.

- 3.5-I6 Reserve stream-channel setbacks necessary for flood control, preservation of existing habitat and vegetation, multipurpose paths or trails, and maintenance access needs.
- 3.5-I7 Amend the Zoning Ordinance to include an Open Space designation as well as an Agricultural designation to provide for continued open space and protect agricultural areas.
- 3.5-I8 Require a permanent Greenbelt or Agricultural Buffer as part of residential developments on the urban edge. Establish appropriate development standards, density transfer provisions, and use regulations for these buffer areas.

See also Policies 2.1-I4 and 2.5-I8. The General Plan Diagram shows the location of proposed Greenbelt Buffers.

- 3.5-I9 Avoid pressures for conversion of agricultural land to urban use east of Leisure Town Road by entering into an agreement with the Solano Irrigation District to limit urban water service to these areas. In accordance with policies set forth in the 1980 General Plan, avoid pressures for conversion of agricultural land to urban use in Upper Lagoon Valley, Bassford Canyon and the Vaca Valley.

See Policy 2.1-I4.

- 3.5-II0 Formulate a specific program for implementation of community separators to be coordinated with the cities of Fairfield and Dixon and Solano County.

The General Plan Diagram shows the general location and width of the community separators.

- 3.5-II1 Do not convert Urban Open Space lands to developed urban uses unless an overriding public purpose requires such a change. Do not convert Greenbelt Buffer lands to developed urban uses except where such a conversion is part of a logical extension of the Urban Service Area and where an adequate Greenbelt Buffer can still be maintained.

- 3.5-I12 Urban Open Space lands and Greenbelt Buffers that are converted to developed urban use shall be compensated for by providing equal or better lands for a similar use in another location. All proceeds that the City receives from any sale of Urban Open Space lands and Greenbelt Buffers shall be used to acquire additional open space lands elsewhere.

4 PARKS AND RECREATION ELEMENT

The presence of plentiful, well-designed parks and recreation facilities contributes to the quality of life in a community. Parks fulfill a number of important functions; they are the green, "breathing" spaces of the City, a place for children to play and explore, a staging area for civic functions, a "get-away" for sport and relaxation that is close to home and work. Parks also help to preserve natural features of the landscape and habitat areas vital to the City's environmental health and sense of place.

The Parks and Recreation Element contains policies which strengthen the City's commitment to providing a high level of parks and recreation services to Vacaville residents. These policies reflect the diversity of Vacaville's parks and recreation programs and respond to changing open space and recreational needs determined by land use decisions in the General Plan.

Vacaville's parks and recreational facilities are operated by the Vacaville Community Services Department. In 1989, the Department changed its name from the Vacaville Parks and Recreation Department to reflect its program of bringing parks and recreation services into the City's neighborhoods.

4.1 INVENTORY AND CLASSIFICATION

The City's inventory of parks and recreation facilities embraces a wide range, from small half-acre bicycle rests to traditional neighborhood ball fields to large tracts of undeveloped open land. Park and recreation facilities are classified into six categories:

Neighborhood Park: A park or playground developed primarily to serve the recreation needs of a small portion of the City. The location serves the residential area within one half-mile of the park. Park facilities are usually oriented towards the recreation needs of children and include multipurpose fields, playgrounds, and tot lots. Existing neighborhood park sites range in size from 2-10 acres. Proposed neighborhood parks are programmed within a 6-9 acre size range, depending upon the neighborhood park needs of the planning sector in which they are located.

Neighborhood School Park: A park or playground built adjacent to but separate from an elementary school. Neighborhood school parks fulfill a combined function of providing open space for the residential area within a one half-mile service area of the park as

well as for the adjacent school. Proposed neighborhood school parks are programmed at a standard size of 6 acres. There are also a few existing elementary schools which have limited neighborhood recreation facilities and are restricted from daily use during school hours.

Community Parks: A park designed to serve a portion of the City's population living within a 1-1.5 mile service radius. Community parks provide facilities such as lighted ball fields, swimming pools, and areas and buildings for community festivals and civic events as well as for organized sports and athletic competitions. While community parks serve larger areas of the City than do neighborhood parks, a community park can also function as a neighborhood park for the area in which it is located. Community parks range in size from 12-74 acres. Proposed community parks are programmed within the 20-25 acre range.

City Park: A park of 100 acres or more, designed to serve the entire City population as a community centerpiece and outdoor recreational space. The location of the proposed city park is centrally sited to serve all areas of the City. A city park may include such facilities as a golf course, playfields, and swimming complex. It may also include large, natural open space areas for low-intensity/passive recreation use.

Urban Open Space: Parcels of land owned by the City of Vacaville and intended for maintenance or preservation in a natural or less-intensive developed state. Urban open space lands include areas of geologic, agricultural, ecologic, and scenic significance as well as hazardous lands and public utility rights-of-way acquired for recreational use. All sections of the proposed Trails System that are purchased by the City will be classified and inventoried as Urban Open Space.

Recreation Centers: Specialized centers providing recreational programs and facilities targeted to meet the needs of a certain sector of the population or neighborhood. Centers are located in buildings operated by the Community Services Department or under contract to the Department for its programs.

The Lagoon Valley Regional Park is a Solano County park located within the City of Vacaville and owned by the City. The park is not considered part of the neighborhood and community park system. With increased development proposed by this General Plan, the City should work with the County to pursue

Lagoon Valley Park as a regional facility with urban amenities. Programs, operation, maintenance, planning and development are the responsibility of Solano County.

Table 4-1 presents an inventory of the City's parks and recreational centers in 1990.

**TABLE 4-1
INVENTORY OF PARKS AND RECREATION CENTERS
1990**

Neighborhood Parks	Acreage	Neighborhood School Parks	Acreage
Alamo Creek	9.5	Alamo School ^a	2.5
North Orchard	6.4	Hemlock ^a	3.0
Trower	4.5	Jepson	2.0
Valley Oak	6.0	Boulder Valley	4.4
Fairmont/Beelard	8.3	Ridgeview	7.0
Patwin	10.0	Regency	6.6
Southwood	3.8	Meadowlands	8.0
Willows	2.0	Sierra Vista	8.0
Pheasants Country	7.0	Fairmont ^a	4.0
Stonegate	6.0	Irene Larsen ^a	4.0
Dos Calles Padan	<u>6.7</u>	Cambridge	3.4
		Foxboro	<u>6.5</u>
TOTAL	70.2 AC		59.4 AC

Note: ^aFenced School Multipurpose Grass Areas Available for Limited Recreation.

Continued

TABLE 4-1 -- *Continued*

Community Parks	Acreage	Recreation Centers	Type; Age Groups Served
Andrews/Ulatis	14.8	Community Center	Recreation; all ages
Nelson	16.0	John A. McBride	Recreation; seniors
Keating	20.0	Georgie Duke	Athletics; all ages
Foxboro	18.0	Trower	Recreation, after school programs; primarily K-12
Community Center ^b	12.0		Neighborhood Center
Peña Adobe	14.0	Cambridge	Recreation, after school programs; primarily K-12
Browns Street	<u>63.0</u>	Fairmont	
Total	157.8 AC		

Urban Open Space	Acreage
------------------	---------

Peña Adobe	50.0
Alamo Terrace	7.0
Bike Trails	7.3
Hidden Valley	14.0
"Old Rocky"	25.0
Glen Eagle	250.0
Boulder Valley	7.0
Creekside Bike Rest	.5
North Orchard Bike Rest	.5
Wellsite Bike Rest #1	1.0
Wellsite Bike Rest #2	1.0
Allison	73.5
Woodcrest	<u>7.0</u>
TOTAL	443.5 AC

Note: ^bFacilities function as a community park.

4.2 STANDARDS

Parks standards ensure that adequate open space areas will be set aside for recreational use as the City develops. The General Plan establishes distribution, size and service area standards for Neighborhood, Community, and City parks. No standards are established for the provision of regional parks, urban open space, and recreation centers. Standards for Neighborhood School Parks are subsumed under the Neighborhood Park category.

Public Parks Distribution. This standard establishes a Citywide standard of five acres of public park per 1,000 residents of the population. Public parks are to be provided according to the following distribution:

Neighborhood Park	2 acres/1,000
Community Park	2 acres/1,000
City Park	1 acre /1,000
Total	5 acres/1,000

Park Size. The General Plan sets the following typical size standards:

Neighborhood Park	6-9 acres
Community Park	20-40 acres
City Park	100 acres

Service Area. The service area is represented as a radius drawn around a neighborhood or community park. Plan policies require that all residential areas of the City be served by a neighborhood park within the standard service area. The service area for the City park is established as an expression of travel time.

Neighborhood Park	0.5 miles
Community Park	1.0-1.5 miles
City Park	Centrally sited to serve all areas of the City.

Park Facilities. The Community Services Department maintains programming standards for parks. As a component of the proposed Parks, Recreation, and Open Space Master Plan, specific facility and programming standards will be identified in a long-range plan for all parks.

4.3 PARK FUNDING

Revenues for the acquisition and development of parks are from park development impact fees. Operation of parks is financed through the City's General Fund. Maintenance of parks is financed through maintenance districts provided by the Lighting and Landscaping Act of 1972. The General Fund provides monies to the Community Services Department for its programs, staff and the maintenance of existing parks and recreation facilities under its jurisdiction. Twenty-eight Park Maintenance Districts (representing 38 percent of the population) were also in place in 1990 to provide for the maintenance of many of the City's newer neighborhood parks.

New neighborhood parks and some urban open space lands located in subdivisions are funded through fees levied upon development as authorized by State law. Mello-Roos Community Facilities also may be used to assist in funding parks and recreation facilities for specific areas.

4.4 FUTURE NEEDS

Neighborhood and Community Parks

Neighborhood and community parks are the building blocks of the City's open space system. The General Plan calculates the need for new neighborhood and community parks by applying the Public Parks Distribution Standard to the projected population forecasts presented in Table 4-2 below. At 104,000 projected residents, Vacaville will require 128 acres of new neighborhood (78 acres) and community parks (50 acres) in addition to the 288 acres existing in 1990. A City Park with a minimum of 104 acres also will be needed.

TABLE 4-2
PROVISION OF FUTURE PARKS

	Neighborhood ^a	Community	City
Future Park Need At 5 Acres/ 1,000 Residents	208	208	104
Existing Acreage (1990)	130	158	0
Net Acres Needed	78	50	104
Acreage Proposed	68	65	170 ^b

Notes: ^aIncludes Neighborhood School Parks.

^bIncludes proposed municipal golf course.

New neighborhood parks will be distributed throughout the City to ensure that all new residential areas are served within a one half-mile service area. Due to the high cost of funding separate neighborhood parks and schools, City policy calls for combining most new neighborhood parks with new elementary school sites. The General Plan designates a total of 11 new neighborhood parks, of which five will be free-standing and six will be new Neighborhood School Parks. A total of 68 acres are planned.

New Community Parks will be located at three "gateway" locations to the City. Two of these park sites (Elmira and Noonan) are at the edges of the urban service area and will assist the City in maintaining a definable urban edge. The third proposed Community Park, Laguna Hills, will be located along the banks of Laguna Creek between the center of Vacaville and the new urban areas proposed for the Lagoon Valley. A total of 65 acres are planned.

Figure 4-1 shows the location of all existing and proposed parks and recreation centers. Proposed parks and acreages are shown in Table 4-3.



TABLE 4-3
PROPOSED PARKS

Name	Size (Acres)
<u>Neighborhood</u>	
Arts Center	8
Lower Lagoon Valley	6
Hemlock Expansion	6
Rice-Aldridge	6
North Village	6
Subtotal	32
<u>Neighborhood School</u>	
Gibson Creek	6
Akerly	6
Hawkins	6
Fry Road	6
Vanden-East	6
Vanden-West	6
Subtotal	36
<u>Community</u>	
Elmira	20
Noonan Reservoir	25
Laguna Hills	20
Subtotal	65
<u>City</u>	
Browns Valley Park	170
TOTAL	303

Acreeage approximate pending acquisition.

City Park

National park and recreation standards establish a need for a city park in communities whose population exceeds 50,000 residents. The General Plan establishes a standard for City Park acreage and designates 170 acres as City Park land on open space lands on both sides of Browns Valley Parkway near Nut Tree Airport. Some of these lands are owned by Solano County. At a minimum, the City will need to provide 109 acres of City Park to meet its Public Park Distribution Standard.

The City Park is intended as a community centerpiece and represents a unique opportunity to provide residents with a large open space haven at the center of Vacaville. At a time of great urban growth in Vacaville, the City Park expresses an understanding of the changes that are occurring in the City and the foresight to respond to these changes by providing all sectors of the population with a common "green" meeting ground. Unlike neighborhood and community parks whose facilities are provided according to recreational programming needs, City Park improvements will be considered as part of an overall landscape design. Careful evaluation and planning of all proposed facilities will be required to determine whether the public function of the City Park is upheld. Facilities and park design will be elaborated within the proposed Parks, Recreation and Open Space Master Plan (Section 4.5).

Urban Open Space

The natural setting of the City is characterized by ridges, hillsides, agricultural valleys, and free-flowing creeks. The General Plan's proposals for new residential, commercial and industrial development raises the question of how large the City will be and what the impact of urbanization will be on the character and use of open space areas. Policies in the Land Use Element express the City's position regarding urban form and growth management. Policies in the Safety Element extend protections to hillside and ridge areas above the twenty-five percent slope line.

One of the means by which the City preserves the features of its natural setting is to acquire open space parcels of land. Urban Open Space (as designated in this element and on the General Plan diagram) is distinguished from other open space land in that the former is acquired and maintained by the Community Services Department as part of its parks inventory. In 1990, the inventory totalled 313 acres and included large parcels such as Glen Eagle (250 acres) and small half-acre bike rests. (See Table 4-1.)

Urban open space areas identified on the General Plan Diagram merit consideration for protection or inclusion in the City's Urban Open Space inventory. These areas are all within or adjacent to new development and may be endangered with development pressure or encroachment. Most of these areas are hillsides and creek corridors which provide habitat and establish urban edges in conformance with policies in the Land Use Element.

Trails

As part of the effort to preserve the City's natural heritage and improve access to outdoor recreation, a Trails System is proposed to link the neighborhoods of the City to recreational resources in a comprehensive network of bikeways, hiking trails and equestrian paths. Although it is a citywide system, each section of the Trails System will be related to its immediate surroundings in design and function. Hillside hiking trails will be rustic and conducive to walking or horseback riding; creekways and multipurpose paths will function more like linear neighborhood parks. The different types of trails proposed are:

Hiking/Equestrian: An unpaved path to be used principally for hiking. Equestrian use should be evaluated in terms of environmental impact and the availability of right-of-way to accommodate a bridle path. Hiking/equestrian trails are located in the Vaca Mountain Foothills and along the ridges of the Cement and English hills.


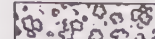
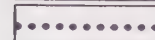
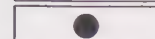


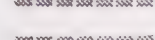
Multipurpose Path: A paved path built to accommodate a broad range of recreational activities related to walking, running and bicycle riding. Where appropriate, a multi-purpose path can include a bridle path if the width of the right-of-way is sufficient to prevent conflict between bicyclists, pedestrians and horseback riders. Multipurpose paths should provide entry points and paved or otherwise improved travel ways for emergency vehicle access. (See Transportation Element for Citywide Bikeways Plan.)

Creekway: A multipurpose path for pedestrians and bicyclists built alongside one of Vacaville's creeks. Existing bikeways built along Alamo and Ulatis creeks form the foundation for the proposed creekways system.

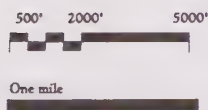
Riparian Preserve: A creek and related riparian habitat which have been designated for preservation in their natural states. The designation of riparian preserves is intended to protect fragile habitat areas which might be considered for multi-purpose paths. Low-impact hiking paths may be appropriate.

Trailhead: The beginning of a hiking/equestrian trail. Trailheads will be marked by orientation signs giving distance mileage, information on trail use including safety hazards, and natural history of the area. Where possible, trailheads will be located at the juncture of two or more sections of the trails system and will provide posts or stands for locking bicycles. There should be parking provided (for bicycles, vehicles, etc.) appropriate to the type of open space area and trail.

Table 4-4 describes each proposed section of the Trails System. Figure 4-2 illustrates the Trails System.

-  Creekway
-  Riparian Preserve
-  Hiking/Equestrian Path
-  Trailhead
-  Multi-purpose Path
-  Major Ridgelines
-  Minor Ridgelines

See Vacaville General
Plan Diagram for
correct (i.e. existing)
alignment of Pleasant
Valley and Cherry
Glen roads.



Vacaville Trails System

Figure 4 - 2



**TABLE 4-4
PROPOSED TRAILS SYSTEM
VACAVILLE GENERAL PLAN REVISION**

Section	Location	Type	Status	Features
1	Transmission Line R.O.W.	Multipurpose Path	Proposed	Completes Existing Path
2	Ulati Creek north of Vaca Valley Road	Riparian Preserve	Proposed	Vegetation, Wildlife
3	Ulati Creek	Creekway	Existing, Proposed	East-West Connections, Completes Creekway
4	Glen Eagle, Old Rocky, Norman, and Woodcrest	Hiking	Proposed	Ridge Trail
5	Vaca Valley Parkway	Bike Path	Proposed	Periphery Route
6	Alamo Creek	Creekway	Existing, Proposed	East-West Connections
7	Sacramento Northern R.O.W.	Multipurpose Path	Proposed	Connection of Periphery Trails to Downtown
8	Cement Hills	Hiking	Existing, Proposed	Ridge Trail, Overlooks
9	Peabody Road	Bike Path	Proposed	Intecity Connection
10	Cement Hills Spur	Hiking	Proposed	Ridge Trail
11	Lower Lagoon Valley	Bike Path	Proposed	Multipurpose Path

Continued

Table 4-4 -- *Continued*

Section	Location	Type	Status	Features
12	Cherry Glen Road	Bike Lane	Proposed	North-South Connections
13	Gibson Canyon Creek east of I-505	Riparian Preserve	Proposed	Vegetation and Wildlife, Flood Control
14	Gibson Canyon Creek; Tributary Stream	Riparian Preserve	Proposed	Vegetation and Wildlife, Flood Control
15	Browns Valley Parkway	Bike Path	Existing, Proposed	North-South Link
16	Leisure Town Road	Bike Path	Proposed	North-South Connection
17	Greenbelt Buffer	Multipurpose	Proposed	Within 1,500' Transition Area (Approx. 1000')
18	Foxboro Parkway Extension	Bike Path	Proposed	Connection to Greenbelt and LTR Paths.
19	Elmira Road	Bike Path	Proposed	Periphery-Downtown Link
20	Allison Drive	Bike Path	Proposed	North-South Link
21	North Village	Bike Path	Proposed	Neighborhood Transportation

4.5 PARKS, RECREATION AND OPEN SPACE MASTER PLAN

Creating new neighborhood and community parks, implementing the Trails System, evaluating open space parcels for protection and building a City Park are only some of the challenges posed by the General Plan. Complex questions about park design, the kinds of facilities needed, and the role of new parks in overall neighborhood planning must still be answered.

The Community Services Department must also plan for an expansion of its programs and recreation centers to meet the needs of a growing City population. The kinds of programs offered, the location of proposed new Centers, and the changing recreational needs of the population must be evaluated.

To accomplish the task of comprehensive planning, the General Plan proposes that a Parks, Recreational and Open Space Master Plan be developed by the Community Services Department. Among the issues to be covered are standards for park facilities, design and maintenance, urban open space and programming. Detailed goals, facilities, and policies for all parks and recreational facilities will be included.

4.6 PARK AND RECREATION POLICIES

Guiding Policies

- 4.6-G1 Develop a high-quality public park system that provides varied recreational opportunities accessible to all City residents.
- 4.6-G2 Provide parks that reflect and respect Vacaville's natural setting.
- 4.6-G3 Recognize the role that parks play in preserving natural features and establishing urban limits.
- 4.6-G4 Establish standards for the provision of public parks to ensure adequate distribution, size, and service area.

- 4.6-G5 Support the use of park facilities by persons working but not residing in Vacaville.

It is increasingly common for workers to take advantage of lunch breaks for athletic and recreational activities. Parks located near offices and businesses can be provided with facilities used by daytime workers.

- 4.6-G6 Encourage development of private and commercial recreational facilities at appropriate locations. Substitution of private recreational facilities for public parks is discouraged in order to ensure access to outdoor recreation by all sectors of the population.

Included under private recreational facilities are golf courses, health and racquet clubs, and riding centers.

- 4.6-G7 Distribute public parks and recreational facilities throughout the urban service zone according to service area standards specified in this Element.

- 4.6-G8 Evaluate the impact of proposed urban development on open space lands in terms of recreational opportunities and consider means of protecting these lands.

- 4.6-G9 Make provisions for handicapped individuals to freely participate in all aspects of community life including recreational activities. Guidelines to be used in providing access for the handicapped shall conform to local, state and federal codes. Parks and recreational facilities shall be designed and built to meet the needs of the handicapped population.

- 4.6-G10 Establish policies to prevent the degradation or despoilment of the City's parklands through inappropriate uses.

Parklands face a number of challenges from concessions, motorized vehicles, and conflicts with urban uses and development pressures.

- 4.6-G11 Provide neighborhood parks to serve the special recreational, cultural, and educational needs of different neighborhoods.

- 4.6-G12 Locate new neighborhood parks adjacent to new elementary schools where possible.

4.6-G13 Provide community parks encompassing a range of uses including active high-investment (gymnasiums, swimming pools, etc.), active low-investment (playfields, etc.) and passive recreational facilities. Community parks shall contain facilities to serve the entire City or large portions of the City by providing recreational and cultural activities beyond those supplied by neighborhood parks.

4.6-G14 Plan park and recreational facilities in cooperation with concerned public and private agencies and organizations.

Among the agencies and organizations that need to be consulted in order to implement the policies of the Parks and Recreation Element are the Solano County Parks Department, Caltrans, the school districts (Vacaville, Travis, Dixon, and Fairfield-Suisun) and the Solano County Farmlands and Open Space Foundation. Coordination and contact with other agencies may also be required.

4.6-G15 Solicit the views of the public in planning park and recreation facilities.

4.6-G16 Provide a City Park with access to all facilities, that is designed to serve as a community centerpiece.

Implementing Policies

4.6-I1 Establish a Public Parks Distribution Standard of 5 acres of park for every 1,000 residents with 2 acres/1,000 residents of neighborhood park, 2 acres/1,000 residents of community park, and 1 acre/1,000 residents of city park.

4.6-I2 Establish typical size and service area standards for neighborhood, community, and city parks as follow:

Area	Typical Size	Service Area
Neighborhood Parks	6-9 acres	0.5 miles
Community Parks	20-40 acres	1.0-1.5 miles
City Parks	100 acres or more	Centrally sited to serve all areas of the City.

- 4.6-I3 Cooperate with special districts, the County, and the State to ensure that the needs of Vacaville residents for regional parks are met.
- 4.6-I4 Prepare and adopt a Parks, Recreation, and Open Space Master Plan. This Plan should include the following elements:
- o Standards for all park classifications and guidelines for urban open space.
 - o An assessment of existing and future parks, recreation and open space needs, including a review of opportunities to link the City's facilities with those of neighboring jurisdictions.
 - o Development of an action plan to provide for sites, funding and facilities to meet the City's needs.
 - o A schedule for acquisition, development, and maintenance of facilities.
 - o An Action Plan for the Community Services Department.
- 4.6-I5 In conjunction with the Parks, Recreation, and Open Space Master Plan, include a child care element that analyzes needs, supply, demand, and funding mechanisms.
- 4.6-I6 Develop a Trails and Trailhead system as shown in Figure 4-2 and Table 4-4. These trails should provide access to and linkage of recreation sites and facilities. Provide an alternative circulation system where more feasible and appropriate. The trail system should complement and tie in with the City's bikeways system.
- See also Figure 6-3.*
- 4.6-I7 Promote the environmental and recreational qualities of Lagoon Valley Regional Park.
- 4.6-I8 Preserve and enhance available riparian corridors, wildlife habitat, oak woodland, and other biotic resources within parks.

4.6-I9 Require developers of moderate and high density projects that do not contain standard yards to incorporate private recreation areas into subdivisions and to create homeowners associations or similar mechanisms for developing, supervising, and maintaining such areas. These recreation areas are in addition to the public parks paid for by building or other fees. All other parks and recreation facilities required by this Plan shall be publicly owned, operated, and maintained and shall be funded, at least in part, by fees paid by new development.

4.6-II0 Require all residential developers, including apartment builders, to provide park and recreation facilities either by reserving sites or by paying an in-lieu dedication fee.

Dedication of turn-key neighborhood parks (parks completed in conjunction with development of a new subdivision) rather than in-lieu fees is desirable subject to policy plan and development plan review for individual master planned areas. In-lieu fees should meet the cost of purchasing parkland if land is not dedicated.

4.6-II1 Encourage the dedication of landscaped and developed parks, trail sections and special requirements where these meet the standards established by the Parks and Recreation Facilities Master Plan.

4.6-II2 Cooperate with the school districts in developing standards for Neighborhood Schools Parks that ensure diversity, quality and innovation in design.

Because most new neighborhood parks are being planned adjacent to schools, it is important that efforts be made to avoid standardized "programmatic" designs. Each neighborhood park should have a distinct and identifiable character which will enhance its use and function in its residential area. No new neighborhood park should be sited on an arterial street.

4.6-II3 Locate parks and recreation facilities in relation to components of the Trails System, buffers, urban separators, and natural features. Wherever possible, site new parks in locations that encourage pedestrian access and that do not require that users cross arterials.

4.6-II4 Ensure that funding is available for new neighborhood parks as a condition of approval of residential development.

- 4.6-II5 Use existing and new well sites, and other public lands, where feasible, for recreation or community gardens.

Community gardens can be used by residents for individual vegetable and flower growing.

- 4.6-II6 Review proposals for private recreation facilities for consistency with Plan policies and standards, and encourage such uses to locate in Greenbelt Buffer areas.

- 4.6-II7 Establish standards and policies for the City Park which define its special function and vision for the City of Vacaville.

- 4.6-II8 Coordinate all proposal for recreational facilities within the City Park as part of an overall landscape design under the Parks, Recreation and Open Space Master Plan.

5 PUBLIC FACILITIES, INSTITUTIONS AND UTILITIES

This section of the Plan addresses utilities and public services, community services, cultural facilities, and historic resources, and school needs and policies and standards for locating new schools.

5.1 UTILITIES AND PUBLIC SERVICES

Water

Vacaville's water system will need improvements to serve buildout under the General Plan. The concepts, sizes, and locations of improvements illustrated in Figure 5-1 are intended only to provide a broad overview at the type of improvements needed to serve buildout development.

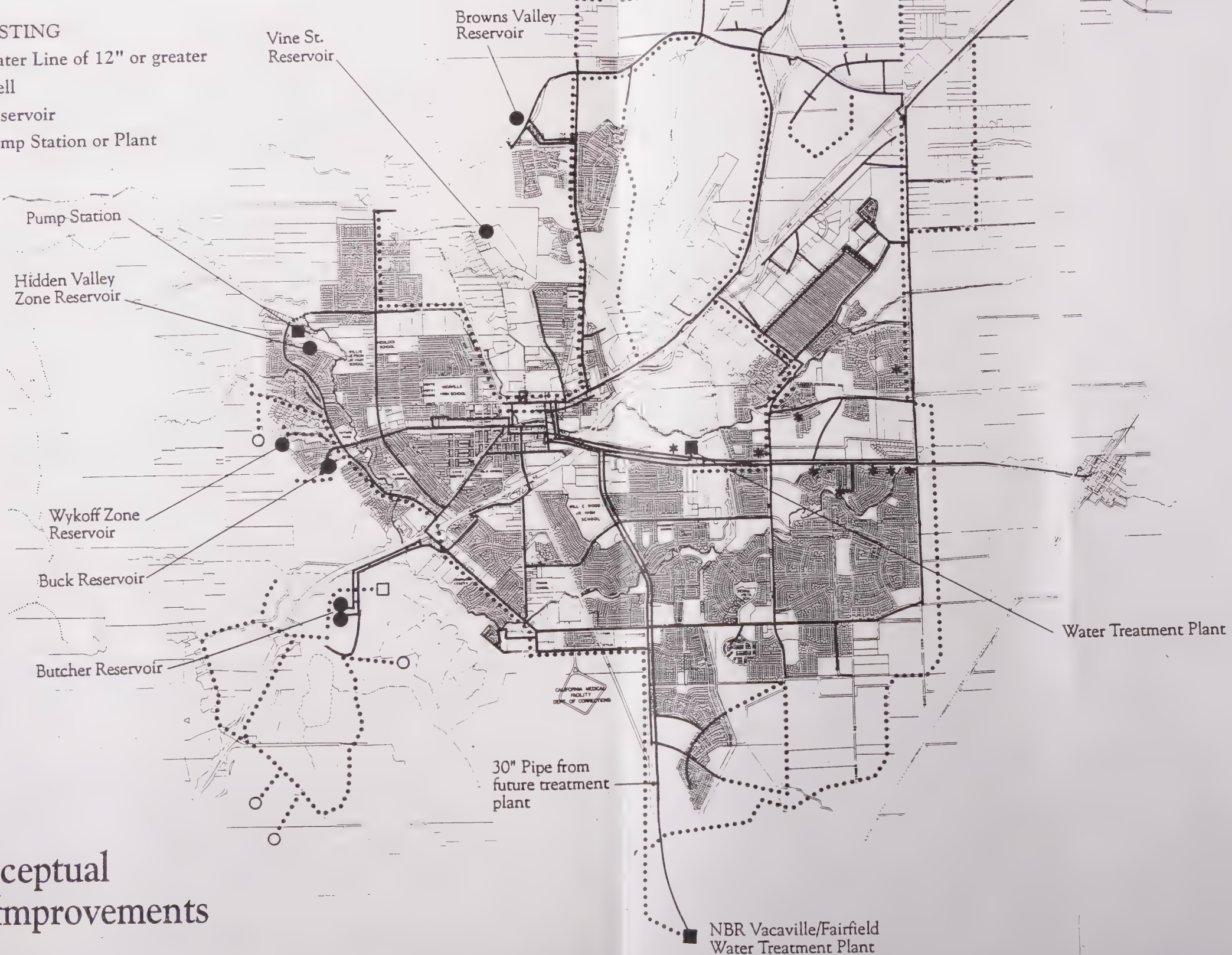
Water Demand. Under General Plan buildout, average and maximum day water demands are approximated between 30 mgd (million gallons per day) and 60 mgd, respectively. By contrast, average and maximum day water demands in 1989 were 11.94 mgd and 22.38 mgd, respectively. The City has water entitlements to serve a population of 90,000. To serve General Plan buildout, additional water entitlements are required. A proposed agreement with the Solano Irrigation District would secure those required water entitlements.

Water Supplies. Currently, the city produces water via nine water wells and a diatomaceous earth water treatment plant (DE plant). Additionally, a regional water treatment plant (NBR plant) will serve Vacaville and Fairfield. The initial phase of construction will include 13.3 mgd for Vacaville, but the design is intended to accommodate future expansion for more capacity. Additional water production improvements are identified below.

- o Wells will need to be replaced as they become old. Typically, a well should last from 30 to 50 years depending upon construction and operating characteristics. Some of the City's wells were constructed in the 1950s.
- o The DE plant will require improvements to increase booster pumping capacity, to install new chemical addition equipment, and to make several other improvements. Improvements at the DE plant will partly be required in response to more stringent State and Federal water quality requirements. If the DE plant is not maintained, its capacity must be replaced elsewhere.

- PROPOSED
- Water line of 12" or greater
 - Reservoir
 - Pump Station or Plant

- EXISTING
- Water Line of 12" or greater
 - * Well
 - Reservoir
 - Pump Station or Plant



Vacaville - Conceptual Water System Improvements

Figure 5-1

- o If the well field and DE plant are maintained at their current capacities, then the 13.3 mgd currently under construction at the NBR plant plus another 33.0 mgd will be required to meet buildout demands. The additional capacity will need to be provided at the NBR plant and construction at other locations as appropriate. This peaking capacity and projected water entitlement can be reduced with a viable water conservation plan. Also see Policies in Section 8.4, Water Conservation.

Pressure Zones. In Vacaville, several different pressure zones are needed to serve development as a result of a wide range of building pad elevations throughout the City. Currently, the largest pressure zone, "Zone 1," is designed to serve development which is below 220 feet and above 120 feet in elevation (currently these limits are exceeded). The storage reservoirs in the Zone 1 system are placed at elevations above the building pads in order to establish and regulate the pressures. Where building pads are higher than those in Zone 1, higher pressure zones are required.

The West Valleys are at a higher elevation than Zone 1, so a higher pressure zone (Zone 2) is needed. Zone 2 will require booster pumping facilities to move the water to the zone, pipelines to distribute water throughout the zone, and storage reservoirs to establish pressures and to provide emergency and operational water requirements.

Reservoirs and pumping stations should be provided for the West Valley South (Lower Lagoon Valley).

Another area of concern is the northwest portion of Vacaville within the existing City limits in the vicinity of Alamo Drive, Fruitvale Avenue and North Orchard Avenue, when low water pressures occur. Extension of Zone 2 into this area is planned.

Pumping Stations. Pumping stations will be needed for Zone 2 in the West Valleys and in the northwest portion of the existing City limits. One pumping station is planned to be dedicated to West Valley South (Lower Lagoon Valley).

Storage Reservoirs. As demands increase in Zone 1, new storage reservoirs will be needed to maintain the level of service provided by the existing reservoirs. For complete buildout within the urban service area, an estimated 20 million gallon of additional storage will be required in Zone 1. This volume can be constructed in increments of any size. New storage reservoirs also will be required for Zone 2 and for other pressure zones which may be established in the future.

Pipelines. Substantial pipeline improvements will be required as growth proceeds in the urban service area to serve currently developed areas, and to convey water to future areas of development.

Sewer

The City's wastewater collection and treatment will need improvements to serve buildout under the General Plan. Figure 5-2 illustrates where new lines will be needed and existing lines will be upgraded to accommodate additional flows. The existing treatment plant with planned expansions to 10 to 12 million gallons per day can accommodate about half the new development anticipated under the General Plan. A Sewer Master Plan, to be completed in 1991, will identify treatment options available to meet the needs for additional capacity beyond the planned expansion. The City intends to acquire and annex additional land adjoining the existing Easterly Wastewater Treatment Plant in order to accommodate upgrading and expansion.

Solid Waste

The current method of solid waste disposal in Vacaville will need to change in response to recent State legislation that requires waste to be diverted from the local landfill. Specifically, 25 percent of the waste stream is to be diverted from the landfill by 1995 and 50 percent by the year 2000. The waste stream generated by General Plan buildout will be approximately 130,000 tons per year, a 76 percent increase over existing amounts being generated. As a result of the additional solid waste entering the waste stream, the City will need to place a strong emphasis on recycling and other waste reduction practices.

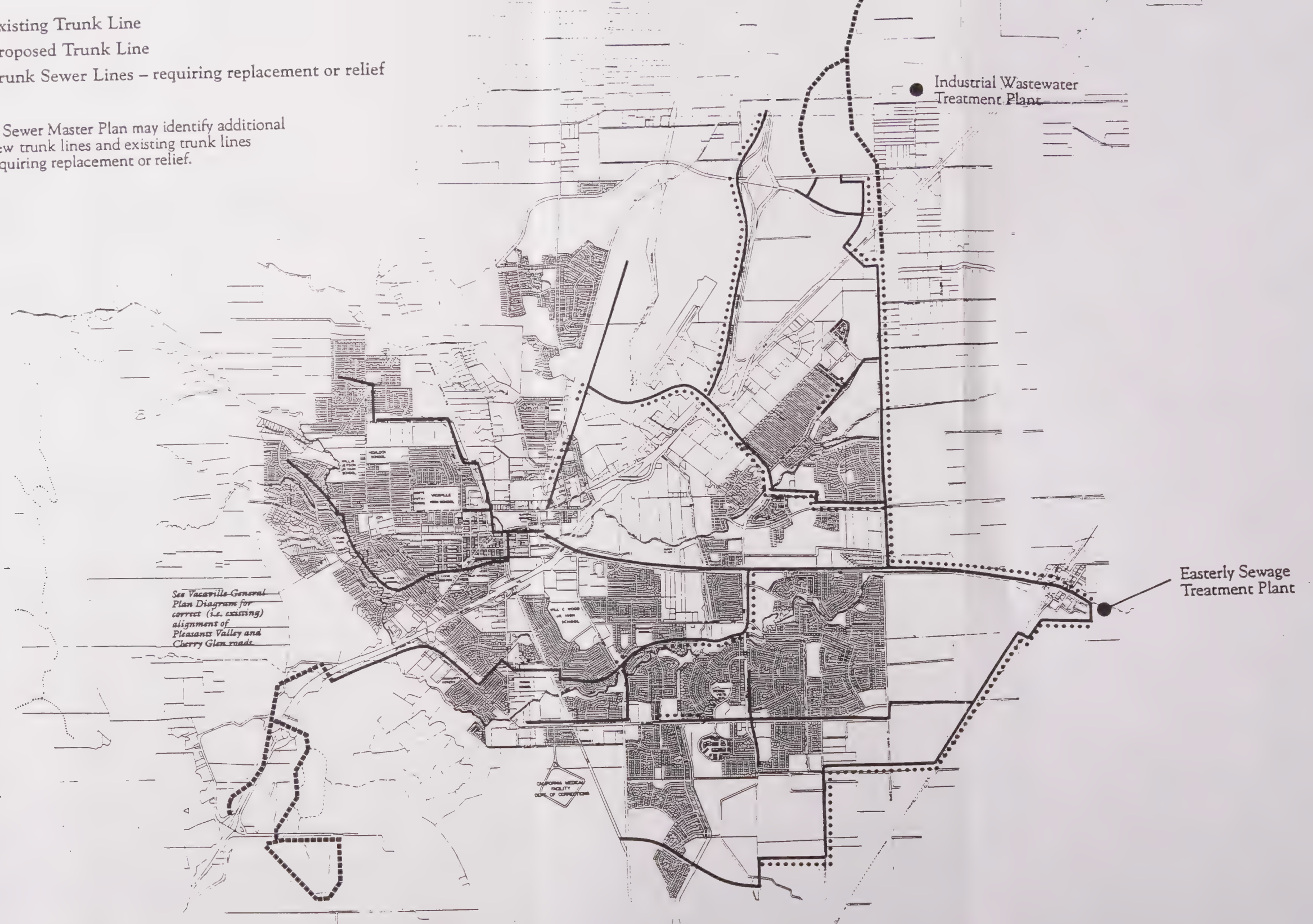
Public Safety

Fire and Emergency Medical Services (EMS). Fire services and emergency paramedic response in the City are provided by the Vacaville Fire Department. The Department currently operates out of 3 stations (Dobbins Street, Eubanks Court and Ulatis Drive), with a fourth station planned for Alamo Drive west of Peabody Road. The Fire Department is equipped with six engines and two ladder trucks, one of which is for sale. The Department also operates three ambulances for EMS. A mutual aid agreement is maintained with the Vacaville Fire Protection District, which services the unincorporated areas adjacent to the City.

The Fire Department has a ratio of .7 fire and rescue personnel per 1,000 population. In addition to fire suppression, the Fire Department is

- Existing Trunk Line
- - - - - Proposed Trunk Line
- Trunk Sewer Lines – requiring replacement or relief

Note: A Sewer Master Plan may identify additional new trunk lines and existing trunk lines requiring replacement or relief.



500' 2000' 5000'
One mile

Vacaville - Conceptual Sewer System Improvements

Figure 5-2

involved in fire prevention activities. For example, the City requires sprinkler systems in some multi-family residential projects and commercial buildings. The Fire Department participates in development application review and fire prevention programs for existing developments.

Law Enforcement.

The Vacaville Police Department serves areas within the City limits, with the Solano County Sheriff's Office serving surrounding areas. The Police Department has a ratio of 1.1 sworn officers per 1,000 population. The area of Solano County from Dixon to Lagoon Valley is covered by two patrol vehicles. The rural nature of the Sheriff's office makes responses to calls for service difficult.

Guiding Policies

Policies relating to the extension of utilities and public services to unserved areas are in Section 2.2, Growth Strategy. Policies relating to water conservation are in Section 8.4, Water Conservation.

- 5.1-G1 Assess the adequacy of utilities in existing developed areas, and program any needed improvements to coordinate with providing facilities to serve developing portions of the Planning Area.
- 5.1-G2 Develop a plan and standards for the provision of public services, including fire and police services.
- 5.1-G3 Require buffer landscaping and multiple use, where feasible, of utility sites and rights-of-way to harmonize with adjoining uses.
- 5.1-G4 Plan for public safety facilities for new areas. Maintain comprehensive Hazardous Materials and Emergency Response plans.
- 5.1-G5 Practice waste disposal methods that divert a minimum 25 percent of the waste stream from the landfill by 1995.
- 5.1-G6 Improve upon and expand waste disposal programs and methods in order to divert a minimum 50 percent of the waste stream from the landfill by the year 2000.
- 5.1-G7 Strive for a minimum 90 percent of City residents to participate in waste diversion programs.

- 5.1-G8 Do not extend utility services into the Upper Lagoon Valley that would promote its urban development.

Implementing Policies

- 5.1-I1 Continue to update the five-year Capital Improvement Plan to provide for the facilities determined to be needed in relation to the City's financial resources and develop a long-range strategic capital development plan consistent with the General Plan.
- 5.1-I2 Update the Water Master Plan to plan for adequate water supplies, storage facilities, pipelines and pumping stations to meet current and projected water demands. The Water Master Plan shall set standards for storage and treatment capacity.
- 5.1-I3 Replace existing water mains with larger mains, as necessary, to serve intensified land use in developed areas.
- 5.1-I4 Prepare a Sewer Master Plan to provide for a level of wastewater treatment meeting State effluent standards, consistent with projected needs. The Sewer Master Plan shall set standards for sewer treatment capacity.
- 5.1.I5 Replace existing sewer trunk lines with larger sewer trunk lines as necessary to serve intensified land use in developed areas.
- 5.1-I6 Develop a Public Safety facilities plan. Include the following elements in the Plan:
- o An Analysis of current facilities and equipment, and their adequacy to service the existing planning area.
 - o Projections of the impacts of new development n the provision of public safety services to the existing and new areas of the community. These projections should include the adequacy of facilities and equipment, response times, communications systems and the adequacy of the water system for fire fighting needs.
 - o Establish and implement response times for police, fire and emergency medical services, and provide personnel, and facilities to meet the established standards.

- o Establish hazardous materials use, storage and disposal standards.
 - o Development of a detailed Wildland Fire Hazard Area map for areas of local responsibility.
- 5.1-I7 Maintain an adequate level of disaster response preparedness through careful review of proposed developments and through staff training in and exercise of the Emergency Operations Plan.
- 5.1-I8 Ensure that new development provides funding for adequate facilities services.
- 5.1-I9 Work with PG&E to develop transmission line corridors for attractive, community-serving, compatible uses.
- 5.1-I10 Designate service corridor easements or routes when tentative maps or specific plans are approved.
- 5.1-I11 Require that undergrounding of all utility lines adjacent to new residential and commercial construction as a condition of development.
- 5.1-I12 Do not approve any development that will not, even with identified mitigation measures, maintain standards for water, sewer, police, and fire service unless there are overriding findings of special circumstances or economic or social benefits and the service standards will be achieved at the time of project occupancy.

Some flexibility may be warranted, particularly if in-lieu fees are collected or the CIP provides for staged construction which may delay compliance.
- 5.1-I13 Evaluate the feasibility of using wastewater for irrigation. Whenever possible, use non-treated water for irrigation in large landscaped areas.
- 5.1-I14 Do not extend sewer trunk lines to the industrial and commercial areas north of Weber Road and at the I-80/Midway Road interchange.
- 5.1-I15 Do not allow development in the Zone 1 water system to exceed an elevation of 220 feet.

- 5.1-I16 Enter into an agreement with the Solano Irrigation District, and pursue other potential sources, to obtain an additional water supply for the build-out of the General Plan.
- 5.1-I17 Establish and maintain a citywide citizen's advisory committee to assist in the preparation of waste reduction, diversion, and education programs.
- 5.1-I18 Adopt and implement a Source Reduction and Recycling Element, or other relevant document, as required by State legislation.
- 5.1-I19 Implement a citywide recycling program.
- 5.1-I20 Implement a citywide household hazardous waste collection program.
- 5.1-I21 Consider composting or similar technique to divert yard waste.
- 5.1-I22 Emphasize educating city residents about the various programs and how their participation is vital to the success of each and every program.
- 5.1-I23 Consider adopting a procurement ordinance to purchase recycled goods, thereby creating a market for recycled materials.

5.2 COMMUNITY SERVICES, CULTURAL FACILITIES AND HISTORIC RESOURCES

As the City grows and, between 1990 and 2010, nearly doubles in size, there will be an increasing demand and increasing support for community services and cultural facilities. The policies in this section recognize the opportunity to enhance and develop services and facilities. In contrast to a land use control approach to siting services and facilities (found in the Section 2, Land Use Element) or a conservation-oriented approach to preserving resources (found in the Section 8, Conservation Element), the policies in this section focus on programs, emphasizing specific actions which, taken together, establish an approach to civic design and the creation and continuing redefinition of civic identity.

Most services which enhance the quality of life within the City, such as health or child-care, and cultural and community facilities, such as theaters, galleries, places of worship, and historic buildings, are provided by private businesses or public agencies other than the City. However, the City is

becoming more involved in the planning, coordination and provision of such facilities (i.e., a new Cultural Center, child care programs). The General Plan establishes policy which facilitates the availability of these services, facilities and resources.

The General Plan supports the construction of a cultural center, with a performing arts facility and library in a central location at the southeast corner of Ulatis and Allison Drives. The City will continue to preserve and enhance historic resources through design review and historic preservation districts. Future discussion of historic resources may be found in Section 8.5, Historic and Archaeologic Resources.

Guiding Policies

- 5.2-G1 Encourage development of public and institutional uses, including, educational, cultural, health-care and day-care facilities in Vacaville. Day-care facilities provide services to children, seniors and handicapped individuals.
- 5.2-G2 Encourage participation by the private sector in funding public or nonprofit facilities and services, that will be used by Vacaville residents and jobholders.
- 5.2-G3 Preserve and enhance the City's historic resources.
- 5.2-G4 Design public buildings and facilities to maintain and improve the beauty of the Vacaville Planning Area.
- 5.2-G5 Design public buildings to fit into and complement their ultimate surroundings; buffer public buildings from their surroundings so as to shield unsightly areas from public view.
- 5.2-G6 Provide adequate landscaping for all public buildings and installations.

Implementing Policies

- 5.2-II Continue to plan for a cultural center with a performing arts facility and a library in a central location.

5.2-I2 Locate public facilities and private community facilities such as churches near residential areas on arterial or collector streets.

5.2-I3 Encourage designation of sites for religious assembly on development plans.

By inviting religious organizations to make their site needs known, the City can facilitate negotiation between potential users and developers during the early stages of project design.

5.2-I4 Encourage day-care facilities in residential areas if there is sufficient available space for outdoor activity, and traffic, parking and noise are mitigated. Determine need for and, where applicable, location of day-care facilities at the time a specific plan, tentative map or development plan is approved.

Also see Policy 4.6-I5 in Section 4.6, Parks and Recreation.

5.2-I5 Develop zoning designation(s) that will clearly delineate major institutions and public facilities and their use.

Such a designation will allow the Planning Commission and City Council to evaluate the appropriate reuse of a site if the public use is discontinued. It also will ensure compatibility with adjacent uses if the development standards at the periphery of a public or institutional use pertaining to setbacks and landscaping are to conform to the adjacent zoning district.

5.2-I6 Continue to provide historic preservation by delineating historic preservation districts and requiring design review of proposals affecting historic buildings.

See also Policy 8.5-I2.

5.3 SCHOOLS

Schools play a central role in the daily life of the City. New families contemplating a home in Vacaville look at the quality of local schools as part of their evaluation of whether to settle in town. Long-time residents are concerned about schools that are overcrowded due to rapid residential growth. And school children, the prime users of schools, require an environment that excites and stimulates learning.

The General Plan provides a forecast of future population growth and evaluates this growth in terms of its effect upon the local school system. The greatest impacts identified are increased enrollment and, consequently, the need for new schools. Secondly, the General Plan evaluates the relationship between building new schools and building new neighborhoods. Policies in this section address these concerns.

School Districts

The City of Vacaville is served by three school districts; Vacaville Unified School District (VUSD), Travis Unified School District (TUSD), and Dixon Unified School District (DUSD). In addition, a small portion of the City's Planning Area, located in the Lower Lagoon Valley, falls within the jurisdiction of the Fairfield-Suisun Unified School District (FSUSD).

Figure 5-3, Existing and Proposed Schools, illustrates the current boundaries of the four school districts serving the City of Vacaville and its Planning Area and shows the location of existing and proposed school sites.

Relationship Between the General Plan and the School Districts

Legally, the school districts are under no requirement to follow the policies of the General Plan. In practice, close cooperation and understanding between the districts and the City are essential if new schools are going to be sited and built. The General Plan addresses future school needs in terms of basic land use decisions and demographics. While appropriate for the General Plan, this treatment is intentionally less detailed than a specific plan that focuses exclusively on school issues. Because siting and building new schools and educational facilities is a complex process, General Plan policy proposes a joint City/School Districts Master Plan as the most effective vehicle for achieving mutual educational goals.

Existing Schools: Permanent and Operating Capacity

The school districts in Vacaville use two related variables, permanent capacity and operating capacity, to assess classroom space. Permanent capacity measures built classroom space; operating capacity adds the number of seats provided by portable classrooms to this total. In 1990, all Vacaville school children within the Vacaville Unified and Travis Unified school districts

attended schools in which portable classrooms were in use. The need to use portables can be linked to the high rate of housing construction in the City which has far outpaced the ability of the school districts to provide permanent classroom space.

Table 5-1 presents an inventory of schools within the three principal districts serving the City of Vacaville in 1990. Operating capacity, enrollment (as of February 1990), and permanent capacity are shown. To summarize:

Vacaville Unified School District: The VUSD operates ten elementary schools (grades K-6), two junior high schools (grades 7-8, also known as middle or intermediate schools), and two standard high schools (grades 9-12). One of these high schools, Will C. Wood, currently has grades 8-10 and will transition to a full four-year high school by the fall of 1991. The district also operates one continuation high school, Country High, with a permanent capacity of 261 seats. The district plans to open three new elementary schools with a total capacity of 1800 students: Jean Callison (September 1990), Browns Valley (September 1991), and Cooper (September 1991).

Travis Unified School District: The TUSD operates one elementary school, Cambridge, within City boundaries. TUSD junior and high school students living in Vacaville attend Golden West (6-8) and Vanden High (9-12). In total, the district operates four elementary schools, one junior high school, one high school and one continuation high school. Two new schools are planned to accommodate residential development approved prior to the General Plan. An elementary school near Nut Tree Road is scheduled for completion in September 1992. A completion date for the Foxboro intermediate school has not been set.

Dixon Unified School District: In 1990, an estimated 50-55 students from the City of Vacaville (including 22 elementary school students) attended Dixon schools. No district schools are located within City boundaries. The DUSD operates two elementary schools, one junior high school and one standard and one continuation high school. Two new elementary schools are planned and both the junior and senior high schools will be expanded. A new, 70-student continuation high school is also planned.

TABLE 5-1
SCHOOL CAPACITIES AND ENROLLMENT, FEBRUARY 1990

School	Grade	Operating Capacity ^a	Enrollment	Permanent Capacity
<u>Vacaville Unified School District</u>				
Alamo(4) ^b	K-6	619	641	522
Elm(7)	K-6	511	511	348
Elmira(29)	K-5	913	913	116
Fairmont(3)	K-5	726	726	638
Hemlock(4)	K-6	539	539	493
Markham(21)	K-6	901	901	464
Orchard(1)	K-6	329	342	261
Padan(14)	K-6	968	968	522
Sierra Vista(14)	K-5	753	753	290
Ulati(1)	K-6	242	241	261
Vaca Peña(10)	7-8	819	819	458
Willis Jepson(4)	7-8	1,041	1,086	1,030
Will C. Wood(3)	9-12	1,809	1,283	1,800
Vacaville High(16)	9-12	2,142	1,674	1,523
Country High(5)	9-12	126	153	126
Browns Valley	K-6	600	0	612
Jean Callison	K-6	600	0	612
Cooper	K-6	600	0	612
Subtotal	K-12	14,238	11,550	10,688
<u>Travis Unified School District</u>				
Cambridge(4)	K-5	560	453	448
Center	K-5	854	522	854
Scandia	K-5	635	468	635
Travis	K-5	983	422	983
Golden West	6-8	1,236	656	1,236
Foxboro Elementary	K-6	750	-	750
Vanden	9-12	1,011	680	1,101
North Campus	9-12	26	40	26
Foxboro East	K-6	750	0	750
Subtotal	K-12	6,805	3,241	6,693
<u>Dixon Unified School District</u>				
Silveyville	K-2	733	733	733
Anderson	3-5	668	668	668
C.A. Jacobs	6-8	610	610	610
Dixon High	9-12	714	714	714
Continuation	9-12	56	56	56
Subtotal	K-12	2,781	2,781	2,781
TOTAL		23,824	17,572	20,162

Notes: ^aIncludes students in portables or other temporary facilities.
^bIndicates number of portables in use.

Fairfield-Suisun Unified School District: In 1990, 18 Vacaville school children (K-8) were reported attending FSUSD schools. No district schools were located within the Planning Area.

Solano County Department of Education (SCDE): One elementary school is operated by the SCDE for children with multiple disabilities.

Future School Need

The General Plan foresees a continuation of residential development in Vacaville and growth to a buildout population of approximately 104,000 residents living in 40,071 housing units. To plan for new schools, each housing unit (with the exception of units for senior citizens) is assumed to generate an average of .7 students (.4 elementary, .1 junior high and .2 senior high).

Table 5-2 presents a projection of public school students at buildout by school district. Senior units and projected private school students (estimated at 5.7 percent) have not been counted in this total.

**TABLE 5-2
PROJECTED STUDENTS UNDER GENERAL PLAN BUILDOUT, 2010**

District	K-6	7-8	9-12	Total
Vacaville	12,014	3,003	6,007	21,024
Travis	2,604	651	1,302	4,557
Fairfield-Suisun	107	27	53	187
TOTAL	14,725	3,681	7,362	25,768

Future school need is determined by comparing the operating capacity of the schools by district in 1990 against the total projected public school students. At buildout, Vacaville will need classroom space for approximately 25,770 students in all grade levels. Counting operating capacity in 1990 and assuming an average school size for each school type, the General Plan forecasts

a need for eleven new schools within the Planning Area. All schools would be located within the Vacaville Unified and Travis Unified school districts. The General Plan does not designate residential development within the jurisdiction of the Dixon Unified School District. Further, no new schools are proposed for that part of the Planning Area lying within the jurisdiction of the Fairfield-Suisun Unified School District. Children living within the Fairfield-Suisun Unified School District will be bussed to schools.

Siting of New Schools

Locating new school sites takes several spatial variables into account: the proposed location of new residential growth, travel distance to and from school, the location of other existing or planned public facilities, especially neighborhood parks, and the City's circulation (streets and paths) system. Other land use variables considered are: constraints on development (airport safety zones, traffic congestion) which prevent siting of new schools, or the presence of natural or man-made resources (creeks, parks, buffer areas) which can enhance the new school's setting.

With the exception of a new elementary school proposed adjacent to the planned Civic Center (which will include a new neighborhood park), all elementary schools are proposed as school/park combinations of approximately 16 acres. Elementary schools are to be located within residential neighborhoods and off major or minor arterial roads to promote safety. The selection of sites for future junior and senior high schools is based upon a consideration of transportation access, proximity to growing residential areas and natural features. All school sites proposed as part of the General Plan are considered preliminary selections. In the case of the junior and senior high school sites and the Civic Center elementary school, several alternative sites have also been selected.

Proposed school sites are summarized in Table 5-3 and existing and proposed school sites are illustrated in Figure 5-3. The General Plan Diagram shows all existing school sites and first alternative selections for proposed school sites.

School District Transfer Areas

The General Plan identifies three areas within the Planning Area which present school district jurisdiction questions. These are shown as shaded areas on Figure 5-3. Two small parcels remain within the Vacaville Unified School District south of Alamo Drive in the Peabody Road and Leisure Town Road area. The General Plan designates Alamo Drive as a major arterial in

EXISTING

PROPOSED

e

JH

HS

e

jh

hs

*

Elementary School

Junior High School

High School

Park (Located next to school)

Alternate Sites

Potential District Transfer Area

Note: Exact location of proposed school sites shall be determined as part of Policy Plan and Development Review in coordination with school districts.

See Vacaville General Plan Diagram for correct (i.e. existing) alignment of Pleasant Valley and Cherry Glen roads.

Vacaville - Existing & Proposed Schools

Figure 5-3

The map displays the Vacaville Unified School District and its surrounding areas. Key features include:

- School Districts:** Vacaville Unified School District, Dixon Unified School District, Fairfield-Suisun Unified School District, and Travis Unified School District.
- Geographical Features:** Gibsons Creek, Browns Valley, Orchard, Markham, Hemlock, Willis Jepson Middle, Vacaville High, Country High, Glatis, Elm, Alamo, Will C. Wood High, Padan, Irene Larsen (Special), Sierra Vista, Cambridge, Vanden West, Vanden East, Foxboro, Foxboro East, Noonan Middle, Elmira, Fry Road, Jean Callison, Vaca Peña Middle, Harbison, Cooper, Hawkins, Willow High, and Ridgeview.
- School Types:** Elementary (e), Junior High (jh), High School (hs), and Alternate Sites (*).
- Potential District Transfer Area:** Indicated by a hatched pattern.

Section 6, the Transportation Element. The General Plan calls for additional residential development on a portion of the site at Leisure Town Road and Alamo. Residential development is not proposed at the Peabody Road/Alamo parcel. However, because Alamo Drive is a distinct boundary and some children would need to cross Alamo Drive, consideration should be given to including these two sites in the Travis Unified School District.

TABLE 5-3
PROPOSED NEW SCHOOLS

School	Grade	Sector
Vacaville Unified School District		
Ridgeview	K-6	North
Gibson	K-6	Northeast
Akerly	K-6	Northeast
Hawkins	K-6	East
Fry Road	K-6	East
Harbison	K-6	East
McMurtry Middle	7-8	North
Willow High	9-12	East
Travis Unified School District		
Vanden East	K-6	South
Vanden West	K-6	South
Noonan Middle	7-8	South

A third site is a portion of the Fairfield-Suisun Unified School District located within Lower Lagoon Valley. The majority of the Lower Lagoon Valley is within the Vacaville Unified School District and consideration should be given to transferring this area to the Vacaville Unified School District.

Within the Lower Lagoon Valley, residential land use in the form of a golf course residential development is proposed for an area lying within the jurisdiction of the Fairfield-Suisun Unified School District (FSUSD). About 540 dwelling units would be built in the FSUSD, generating an estimated 380 students in all grades. This total is not large enough to warrant siting a new school in the Lower Lagoon Valley. School children from this area would attend schools elsewhere within the Fairfield-Suisun Unified School District. Transferring jurisdiction of this area to the Vacaville Unified School District would eliminate the need to bus school children into Fairfield. However, school children would still need to travel by bus to attend schools located in other areas of the City.

School Funding

As of January 1987, State law (AB 2926, Chapter 887 of the laws of 1988) allows school districts to levy development fees directly, at a rate of up to \$1.56 per square foot of new residential development, and \$0.25 of commercial and industrial.

Calculations of the amount of district revenue that could be raised from development fees determines the required local contribution or "match" to State funds. Required local participation is the maximum amount of fees that could legally be collected on new development from the date of approval of the district's application to the date a notice of completion of the school is issued. As of January 1989, all three districts in the Vacaville area are charging these development fees at the full rate allowed.

In addition to the use of developer fees which are applicable citywide, school districts may acquire funds to provide school services in specific areas through the creation of a Community Facilities District. The Mello-Roos Community Facilities Act of 1982 allows the City Council to create such a district with a two-thirds vote by area landowners, and may authorize a special tax and sell bonds to meet service costs. School districts also may initiate formation of a Community Facilities District.

Guiding Policies

- 5.3-G1 Recognize that high quality education for Vacaville's school children is a community priority.
- 5.3-G2 Promote the construction of school buildings and facilities which will be a source of civic pride, visual pleasure, and community identity.
- 5.3-G3 Support the principle that school children deserve to attend schools that are housed in permanent facilities and located within close proximity to their homes.
- 5.3-G4 Work towards close cooperation and coordination between the City of Vacaville and the school districts.
- 5.3-G5 Inform the school districts of policies and projects that may affect the provision of educational facilities and services.
- 5.3-G6 Plan educational facilities with sufficient permanent capacity to meet the needs of current (1990) and projected future enrollment.
- 5.3-G7 Cooperate with school districts in planning school parks as a means of meeting neighborhood recreation, child care, and open space needs.

(See also Policy 4.6-I12)

Implementing Policies

- 5.3-I1 Develop a City of Vacaville/School District Master Plan as a means of providing greater detail on specific school sites, buildings, and educational facilities and financing mechanisms.

Mello-Roos Community Facilities Districts and other funding mechanisms can help fund school construction. They may be initiated by the City or the districts, independently or jointly.

- 5.3-I2 If proposed school sites are not required or are needed in an alternate location, as determined by the school districts, the land use of the site will automatically revert to the predominant land use in the area.

5.3-I3 Require that sufficient classroom capacity will be available before approving residential development. (*See Policy 2.2-I8*)

5.3-I4 Reserve school sites as shown on the General Plan Diagram, (appropriately-located or alternative sites).

All site designations will be included in policy plans which are required for new areas of development. (See Policy 2.2-I9)

5.3-I5 Encourage neighboring school districts to propose changes in jurisdictional boundaries where such change would benefit the safety of school children and reduce their travel time to school.

5.3-I6 Encourage school districts to promote innovative and high-quality design in school building architecture, landscaping, and campus layout.

Schools and adjacent parks are the focus of life for young residents of Vacaville. School buildings constitute important landmarks in the image that children form of their community.

6 TRANSPORTATION ELEMENT

In theory, a circulation system is designed to serve a desired pattern and intensity of land uses. In practice, in many areas of Vacaville, the circulation system dictates land-use intensity. In the mid-1980s, with regional freeway volumes increasing at 8 percent per year and queues lengthening at suburban intersections, traffic has become a leading issue in Vacaville and other developing Bay Area communities.

State law requires that a Transportation Element include "the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and other local public utilities and facilities, all correlated with the Land Use Element of the Plan" (Govt. Code, Sec. 65302[b]). Public facilities and utilities are addressed in a separate element in this Plan.

The Plan's circulation system has been devised to:

- o Permit traffic to choose reasonably direct paths to destinations throughout the Planning Area;
- o Minimize intrusion of through traffic onto local roadways;
- o Avoid over-reliance on I-80 for intracity travel by creating a loop street system around the City;
- o Provide efficient routes for transit service, emergency, and other service vehicles.

In addition to providing traffic capacity to serve development in and adjacent to the existing urban area, the Transportation Element incorporates capacity for development in the West Valleys. At buildout, assuming probable development under the Plan's limits on density and building intensity, the roadways generally will be operating at the design capacity. However, certain intersections will exceed the City's desired level of service but special circumstances justify this condition. For the most part, this occurs where traffic from several directions meets and right-of-way limitations do not permit widening for roadway improvements.

6.1 STANDARDS FOR TRAFFIC SERVICE AND STREET IMPROVEMENTS

In Vacaville's already-developed areas, the primary circulation issue is the flow of traffic on City streets. The standard used for measuring this flow is called a Level of Service (LOS). Levels of Service are classified along an A through F range, with LOS A, B and C indicating conditions allowing traffic to move freely. At these levels, average delays of less than 25 seconds at intersections are expected. LOS D and E indicate progressively worse operational conditions, similar to those found at the busiest intersections, with average delays of 25 to 60 seconds. LOS F designates projected traffic volumes exceeding the capacity of the intersection, resulting in long queues and delays averaging 60 seconds or more.

Transportation Element policies establish both Level of Service standards and a hierarchy of roads within the City's roadway network. The road hierarchy is composed of three different classifications: arterial, collector and local. Each road type is assigned and performs a different function in moving people around the City. In most cases, collector and local roads also serve as residential streets. Figure 6-1 depicts the recommended future roadways by type.

Much of the General Plan design effort involved balancing land use decisions against traffic flow considerations. This was accomplished in two steps. Peak period traffic conditions were evaluated by comparing projected traffic volumes to roadway and intersection capacities. The ratio of traffic demand to capacity (called either demand/capacity ratio, or volume/capacity ratio when evaluating short-term conditions) was used to describe the Level of Service traffic flow on a roadway or through an intersection. Where conditions were projected to create severe traffic congestion, the capacity of roads recommended to be increased through improvements (i.e., construction of new lanes or interchanges) and/or the permitted intensity of development was reduced in order to insure an acceptable traffic flow. The City's definition of "acceptable" is determined by Level of Service as set forth in policies 6.1-G1, 6.1-G2, and 6.1-G3.

Peak-period traffic operations on arterial routes are evaluated by comparing projected traffic volumes to roadway and intersection capacities. The ratio of traffic demand to traffic capacity (demand/capacity ratio, or volume/capacity ratio when evaluating short-term conditions) can be used to describe the quality of traffic flow on a roadway or through an intersection.

- Freeway (8,6, and 4 Lane)
- - - 6 Lane Arterial (Divided or Undivided)
- 4 Lane Arterial (Divided or Undivided)
- - - 2 Lane Arterial
- 2 Lane Collector
- Indicates roadways that continue beyond Study Area

PEAK HOUR TRAFFIC CAPACITIES - LOS C

- 12,000 FHP (8 Lane Freeway)
- 8,000 VPH (6 Lane Freeway)
- 4,500 VPH (6 Lane Divided Arterial)
- 3,500 VPH (4 Lane Divided Arterial)
- 2,500 VPH (4 Lane Undivided Arterial)
- 1,500 VPH (2 Lane Arterial)
- 1,000 VPH (2 Lane Collector)

Potential new roadway



Vacaville - Recommended Future Roadways by Type

Figure 6 - 1

Prepared by: TJKM

Guiding Policies

- 6.1-G1 Strive to maintain traffic LOS C or better as the standard at all intersections. LOS C is the required standard for outlying areas not limited by existing development for right-of-way expansion.
- 6.1-G2 LOS D may be approved as an allowable standard by the City Council for infill areas or isolated situations where existing development or other practical considerations limit improvements.
- 6.1-G3 LOS E or LOS F is allowable only for infill areas or isolated situations subject to a public hearing and findings by the Planning Commission and City Council that:
- o There is no practical and feasible way to mitigate the lower level of service.
 - o The uses resulting in the lower level of service are of clear, overall public benefit.
- 6.1-G4 Establish and implement a uniform set of standards for the City's roadway network.

Implementing Policies

- 6.1-I1 Design roadway improvements and evaluate development proposals based on LOS standards prescribed in Policy 6.1-G1, 6.1-G2, 6.1-G3 (See also Policy 2.2-I6 and 2.2-I8 requiring development proposals to be denied if unacceptable traffic levels of service will occur.)
- 6.1-I2 Implement, to the extent feasible, Transportation Element improvements summarized in Table 6-1 and illustrated in Figure 6-2 prior to deterioration in levels of service below the stated standard.

Development approvals should require reasonable demonstration that traffic improvements necessary to serve the development without violating the standard will be in place in time to accommodate trips generated by the project.

Table 6-1 RECOMMENDED ROADWAY IMPROVEMENTS

ROADWAY	BETWEEN	IMPROVEMENT
Vaca Valley Parkway	west of Orchard Avenue and Browns Valley Parkway	Widen from two to four lanes (and new four lane arterial where it does not yet exist)
	Browns Valley Parkway and I-80	Widen from two to six lanes
Orange Drive	Nut Tree Road and Leisure Town Drive	Widen from two to four lanes
	Its current terminus and west of Willow Avenue	Four lane arterial
Ulatis Drive	Nut Tree Road and Leisure Twn Road	Widen from two to four lanes
	Allison Drive and Nut Tree Road	Four lane arterial
Mason Street/Elmira Road	Davis Street and Leisure Town Road	Widen from four to six lanes
	East of Leisure Town Road	Widen from two to four lanes
Fry Road	East of Leisure Town Road	Upgrade from two-lane collector to four-lane arterial
Cherry Glen Road	I-80 and California Drive	Widen from two to four lanes
Davis Street	Mason Street and Hume Way	Widen from two to four lanes
Eubanks Drive	Aldridge Road and Midway Road	Two lane arterial
Allison Drive	Monte Vista Avenue and Nut Tree Parkway	Six lane arterial
	Nut Tree Parkway and Elmira Road	Six lane arterial

Table 6-1 RECOMMENDED ROADWAY IMPROVEMENTS

ROADWAY	BETWEEN	IMPROVEMENT
Midway Road	Gibson Canyon Road and I-505; east of I-80	Upgrade from two-lane collector to two lane arterial
	I-505 and I-80	Widen from two to four lanes
Leisure Town Road	City Limits and I-80; Alamo Drive and City Limits	Widen from two to four lanes
	I-80 and Alamo Drive	Widen from two to six lanes
Peabody Road	Elmira Road and City Limits	Widen from four to six lanes
Nut Tree Parkway	Nut Tree Road and Allison Drive	Widen from two to four lanes
Alamo Drive	I-80 and Marshall Road	Widen from four to six lanes
Gibson Canyon Road	Vaca Valley Parkway and Deodara Avenue	Widen from two to four lanes
Depot Street	Mason Street and Monte Vista Avenue	Widen for additional capacity
Browns Valley Parkway	Allison Drive and north of McMurtery Lane	Widen from two to four lanes
E. Monte Vista Avenue	Browns Valley Parkway and Vaca Valley Parkway	Widen from two to four lanes
Allison Drive	Vaca Valley Parkway and E. Monte Vista Avenue	Widen from two to four lanes
	Vaca Valley Parkway and Aldridge Road	Widen from two to four lanes

Table 6-1 RECOMMENDED ROADWAY IMPROVEMENTS

ROADWAY	BETWEEN	IMPROVEMENTS
Akerly Loope	Connecting Meridian, Leisure Town Road and Vaca Valley Parkway	Four lane arterial
Burton Avenue	Ulatis Drive and Nut Tree Road	Four lane arterial
Hume Way	Davis Street and Peabody Road	Four lane arterial
California Drive	Peabody Road and Marshall Road	Two lane arterial
	Marshall Road and Pleasants Valley Road	Four lane arterial
Various roadways in the southeast sector and Lagoon Valley sector	-----	Two and four lanes

- 4 Lane to 6 Lane Arterial
- 2 Lane to 4 Lane Arterial
- - - - 2 Lane to 6 Lane Arterial
- . - . Upgrade to Arterial Standards
- - - - New Roadway
- Indicates roadways that continue beyond Study Area

Freeway Interchange Improvements

NOTE:
This figure shows roadway sections needed in addition to existing sections as well as placement of new roadways.



Vacaville - Major Roadway Improvements

Figure 6 - 2

- 6.1-I3 Improve intersections as needed to maintain traffic levels of service and safety on major arterials.
- Specific improvements should be identified and implemented on the basis of detailed traffic studies. Improvements may include intersection approach lane expansion, related channelization improvements and traffic signal installations. Intersections and interchanges where needed improvements are projected are listed in Table 6-1. Other intersections not identified in the Table also may need future improvements.*
- 6.1-I4 Adopt design standards for each functional roadway classification, including private streets.
- 6.1-I5 Continue to review and update the Citywide Transportation Study to reflect the adopted General Plan and existing land uses to ensure that the LOS standards are met. The study shall identify those intersections where LOS below C are found to be acceptable.
- 6.1-I6 In order to ensure that adequate traffic capacity is provided for the buildout of the General Plan and that new developments do not preclude the construction of adequate circulation facilities, require all new developments to provide right-of-way and improvements consistent with the Citywide Transportation Study.
- 6.1-I7 Consider, in policy plans, the long-term growth in through-traffic and potential development in adjacent areas beyond the 20-year planning period in order to determine arterial street right-of-way requirements.

6.2 FREEWAYS AND ARTERIAL ROADWAYS

Maintenance of acceptable levels of service will require major improvements to the arterial roadway system. Although the Plan circulation system focuses on arterial and collector roadways, conditions on I-80 will affect and be affected by development in the Planning Area. Volumes projected for I-80 will exceed capacity, even with the programmed widening, necessitating further widening or major increases in the use of transit and other Transportation Systems Management (TSM) techniques (see Section 6.4).

Guiding Policies

- 6.2-G1 Work with the California Department of Transportation (Caltrans) to achieve timely construction of programmed freeway and interchange improvements.
- 6.2-G2 Coordinate, to the extent feasible, transportation system improvements with neighboring jurisdictions.
- 6.2-G3 Provide adequate capacity on arterial roadways to meet LOS standards and to avoid traffic diversion to local roadways or the freeway. Frontage roads, or parallel roadway facilities, should be provided adjoining the freeways wherever possible in order to avoid traffic diversions on the freeways.
- 6.2-G4 Locate high traffic-generating uses so that they have direct access or immediate secondary access to arterial roadways.
- 6.2-G5 Establish a funding system that will enable completion of arterial roadway and interchange capacity improvements before the projects that require them are fully occupied.

Implementing Policies

- 6.2-I1 Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, minimizing residential access, and requiring sufficient on-site parking to meet the needs of each project.

Additional guidelines for arterial access include providing smooth ingress/egress to development fronting on arterials. This includes designing parking areas so that traffic turning into the parking areas does not stack up on the arterial roadway, combining driveways to serve several small parcels, and maintaining adequate distance between driveways and intersections to permit efficient traffic merges.

- 6.2-I2 Formulate and implement a program to levy fees based on traffic characteristics of major residential and nonresidential development that is approved, to be used for roadway improvements.

- 6.2-I3 Encourage Caltrans to widen and upgrade I-80 through Vacaville. In new development areas adjoining I-80 and I-505, require major building setbacks and require offers-of-dedication to permit the long-term planning and widening of the freeways.

6.3 COLLECTOR AND LOCAL ROADWAYS

The General Plan Diagram and Figure 6-1 show freeway, arterial and collector roadways. Collector routes funnel traffic from local access roadways to the arterial roadway network. Local roadways are not indicated on the Plan map but are the subject of Plan policies.

Guiding Policies

- 6.3-G1 Design local roadways and implement traffic-control measures to maintain LOS C on local streets.
- 6.3-G2 Design new collector roadways and implement traffic-control measures where feasible to maintain LOS C on these new collector roadways.
- 6.3-G3 Discourage through-traffic on local roadways.
- 6.3-G4 Designate truck routes, and discourage unnecessary through-traffic in residential areas through circulation system design and planning.

Implementing Policies

- 6.3-I1 Avoid adding traffic to roadways carrying volumes above the standards.
- 6.3-I2 Design local roadways as short, discontinuous roadways to discourage use by through-traffic.

Implementation of improvements for arterial and collector roadways will also reduce diversion to local roadways.

- 6.3-I3 Control access to auto-oriented commercial areas by use of median strips and frontage roads to assure safety and minimize traffic conflicts.

6.4 TRANSPORTATION SYSTEMS MANAGEMENT

The term "Transportation Systems Management" (TSM) refers to measures designed to reduce peak-period auto traffic, by making more efficient use of existing transportation resources, and emphasizing ridesharing and non-auto alternatives. These include public transit, flexible working hours, carpooling and vanpooling, and incentives to increase the use of these alternatives. TSM has become increasingly important in the effort to maintain acceptable levels of service in the County and elsewhere in the Bay Area.

A successful TSM program is an essential and important element in the continuing effort to achieve acceptable levels of traffic service based on the standards in policies 6.1-G-1, 6.1-G2, and 6.1-G3. TSM strategies, in concert with proper land-use planning, can help to reduce the impacts of full development consistent with Plan land-use policies. Therefore this program is considered a necessary component of the Transportation Element.

The City intends to use Transportation Systems Management measures to not only reduce peak-hour trips, but also to achieve an overall trip reduction which can assist in achieving regional air quality standards.

Many California cities have implemented successful TSM programs. The Vacaville General Plan is based upon a 30 percent trip reduction goal for new and existing uses within the industrial parks and business parks and other large employment centers.

Transit

Vacaville is currently served by two local bus routes and one regional bus route. When higher employment and residential densities are reached at full development, public transit will play a larger role in transportation in the area, particularly for commute trips within Vacaville and to and from adjoining cities. Design transit routes to meet existing fare box recovery rates.

Regional as well as local transit appears to be necessary to maintain acceptable travel alternatives and effect a balanced level of service. Projections indicate the potential for serious traffic congestion in the I-80 corridor in the future, even if the freeway were widened to 10 lanes. This is a result of anticipated growth in all the communities within the corridor rather than just in the Planning Area. Efforts to develop and implement regional public transit should be continued, even though the realistic horizon for such

an improvement is distant, to effectively reduce the rate of growth in auto trips and thus the need for many widenings.

Guiding Policies

- 6.4-G1 Establish a minimum 30 percent trip reduction goal during peak time periods for a TSM program for new and existing uses in new and existing employment areas.
- 6.4-G2 Cooperate with the local business community and development community to develop a TSM ordinance that will allow the community to meet the 30 percent trip reduction goal and continue a positive and supportive business environment.
- 6.4-G3 Ensure that employers implement TSM major programs to reduce peak-period trip generation.
- 6.4-G4 Cooperate with public agencies and other entities to promote local and regional public transit serving Vacaville.

Implementing Policies

- 6.4-I1 Adopt a TSM ordinance to implement a minimum 30 percent trip reduction goal and commit to fund adequate administration to promote and require compliance with the TSM ordinance.

The citywide traffic model incorporates and depends upon a 30 percent peak-hour trip reduction factor to meet proposed LOS standards.

- 6.4-I2 Require major employers to adopt TSM programs which will reduce peak-period trip generation by 30 percent or more from the vehicle trip generation currently observed at similar sites without a TSM program.
- 6.4-I3 Favor TSM programs that limit vehicle use over those that extend the commute hour.

Programs such as ridesharing and public transit reduce overall vehicle travel while flex-time and staggered work hours simply shift traffic to less congested times of day. Limiting vehicle use makes a greater contribution to regional air quality.

- 6.4-I4 The transit routes and service should be designed to meet the federally required fare box matching revenues.

- 6.4-I5 Encourage construction of regional rail facilities, including a regional rail stop, that will serve Vacaville. Encourage the implementation of an inter-city public transit/bus system to link Vacaville with neighboring communities.

- 6.4-I6 Require facilities for future transit use when designing improvements for roadways.

- 6.4-I7 Design local transit to plan for local bus routes that improve service for potential riders. This includes improvements such as bus turnouts and shelters and related facilities.

Local and regional bus routes are adjusted from time to time to better serve their ridership. Time schedules and fares for all forms of transit are also subject to adjustment. The City keeps a map of current local bus routes and stops, along with time and fare information, at City Hall.

- 6.4-I8 Work with Caltrans to identify and evaluate sites for rideshare parking and establish standards for such site development.




- 6.4-I9 Support and encourage Caltrans to preserve options for future transit use when designing improvements for Interstate and State routes.

- 6.4-II0 Continue to designate bike lanes and construct cross-city bike routes designated in this General Plan to facilitate non-motorized home-to-work trips.

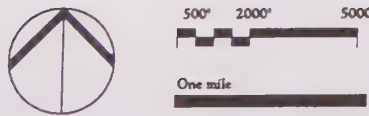
- 6.4-II1 Remove physical barriers to improve access to transit facilities for the elderly, handicapped and other transit-dependent groups.

6.5 BIKEWAYS AND PEDESTRIAN PATHS

The relatively flat areas of the City, where most of the Planning Area's potential residents would live and most of its jobs would be, are attractive for both bicycle commuters and recreational riders. The routes designated by the Plan in Figure 6-3 represent an expansion of previously adopted bikeways.

-  Bike Path
-  Bike Lane
-  Bike Route

Note: In some instances, for some segments of existing roadways, there may not be adequate right-of-way to provide bikeways.



Vacaville Bikeways

Figure 6 - 3

Three types of bikeway designations are planned for Vacaville:

Bike Paths are defined as separate, off-street multipurpose paths.

Bike Lanes consist of on-street bikeways which are separated from automobile traffic by a lane marking on the street (at least 5 feet wide). In some locations, 8-foot bike lanes are provided.

Bicycle Routes are on-street bikeways that are designated by signage only.

Routes are generally proposed for residential streets and non-residential streets carrying low traffic volumes with few curb cuts. Heavy traffic and narrow roads generally call for a bike lane marking to provide a safer travel space for the cyclist. Bike lanes also may be proposed on a street that is currently too narrow or has other restrictive qualities. Should this street be improved, a bike lane should be constructed.

New off-street bicycle paths are proposed for the following areas:

- o Lower Lagoon Valley - all proposed new arterial streets.
- o Sacramento Northern right-of-way from California Drive to I-80.
- o Uncompleted sections of Alamo and Ulatis creekways.
- o Elmira Road from Leisure Town Road to Depot Street.
- o Vaca Valley Parkway and the Akerly loop.
- o Allison Drive from Browns Valley Parkway to Elmira Road.

Guiding Policies

- 6.5-G1 Establish a comprehensive network of on- and off-roadway bike routes to encourage the use of bikes for commute, recreational and other trips.

Figure 6-3 shows a schematic system of bicycle routes on arterial and collector streets.

- 6.5-G2 Require major employers to provide support facilities to encourage use of bikes for commute purposes.
- 6.5-G3 Develop bike and pedestrian routes that provide access to schools, historic sites, governmental services, major commercial centers, parks and regional open space.
- 6.5-G4 Ensure safe, pleasant and convenient pedestrian paths, sidewalks, and trails to accommodate all segments of the population.
- 6.5-G5 Continue to support programs to improve the mobility of the elderly and handicapped, remove existing architectural barriers, and require that new development be accessible to those with physical impairments.
- 6.5-G6 Designate new bike routes only where necessary to connect Vacaville's bikeway system with existing bike routes designated by Solano County.

Implementing Policies

- 6.5-I1 Use available rights-of-way and creek banks for public use as trails, bikeways or walkways.
- 6.5-I2 Incorporate bike storage and other support facilities into TSM plans at employment sites and public facilities.

Studies have indicated the importance of providing well-located, secure bike storage facilities at employment sites, shopping and recreational areas and schools in order to facilitate bike use. Employers often provide shower and changing facilities where sizable numbers of employees use bikes.

- 6.5-I3 Provide adequate public and private bicycle parking and storage facilities as part of new multifamily and non-residential developments. Revise the parking regulations in the Zoning Ordinance to require bike parking spaces in retail areas, at major employment centers, and at public facilities.

- 6.5-I4 Develop a series of continuous pedestrian walkways within Downtown and residential neighborhoods.

Sidewalks should be creatively designed to invite safe and pleasant use by pedestrians, and be free of obstacles, such as signs. Sidewalks should be protected or separated from traffic.

- 6.5-I5 Develop a program to remove all barriers to disabled persons on arterial and collector streets.

- 6.5-I6 New and existing on-street bicycle lanes shall be striped, signed and maintained to encourage their use.

6.6 AIRPORTS

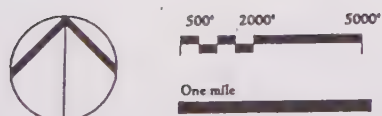
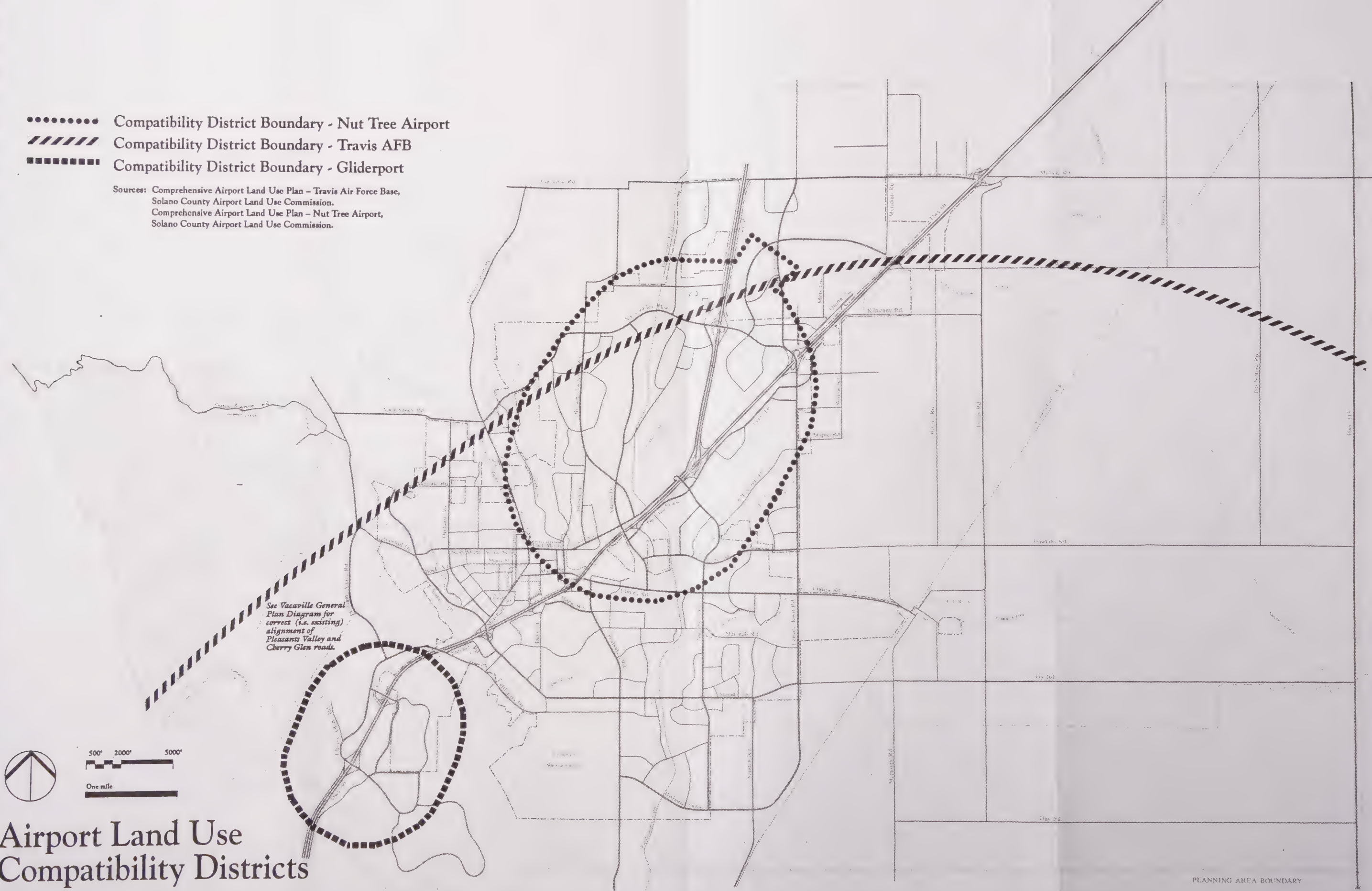
Nut Tree Airport is a valuable resource for business and recreational air travel, while Travis Air Force Base is the home of the world's largest military airlift. The Solano County Airport Land Use Commission (ALUC) unit has adopted plans for airport land use compatibility which will facilitate orderly development in the airport environs and avoid land use conflicts. The ALUC also reviews certain development proposals within designated referral areas, which are depicted on the General Plan Diagram. Noise contours for airports are shown in Figure 10-2. However, once local regulations are consistent with the Airport Land Use Compatibility Plans, project review is not required unless a Plan amendment is proposed posing a potential conflict. Figure 6-4 depicts the Airport Compatibility Districts.

Guiding Policies

- 6.6-G1 Maintain and improve Nut Tree Airport for general aviation.
- 6.6-G2 Ensure that land uses in the vicinity of Nut Tree Airport or potentially affected by Travis Air Force Base is compatible with airport operations and is consistent with the Airport Land Use Plan for both airports.

- Compatibility District Boundary - Nut Tree Airport
- //// Compatibility District Boundary - Travis AFB
- Compatibility District Boundary - Gliderport

Sources: Comprehensive Airport Land Use Plan – Travis Air Force Base,
Solano County Airport Land Use Commission.
Comprehensive Airport Land Use Plan – Nut Tree Airport,
Solano County Airport Land Use Commission.



Airport Land Use Compatibility Districts

Figure 6-4

Implementing Policies

- 6.6-I1 Continue to implement the Nut Tree Airport Land Use Plan (ALUP) through the zoning regulations adopted by the City.
- 6.6-I2 Continue to refer development proposals within the Nut Tree Airport Compatibility District (as shown on Figure 6-4) to the County Airport Land Use Commission per the Nut Tree ALUP.
- 6.6-I3 Avigation easements shall continue to be required to be granted to Solano County for all development within the Nut Tree Airport Compatibility District. Residential renters and purchasers shall be notified that they are in the vicinity of an airport per the adopted City ordinance.
- 6.6-I4 Implement the Travis Airport Land Use Plan by amending the City Zoning Ordinance to incorporate all applicable regulations on land use.
- 6.6-I5 Development proposals within the Travis Airport Compatibility District (as shown on Figure 6-4) shall be referred to the County Airport Land Use Commission per the Travis ALUP.
- 6.6-I6 Avigation easements shall be required to be granted to Travis Air Force Base for all development within the Travis Airport Compatibility District.

7 HOUSING ELEMENT SUMMARY

California Government Code Sections 65580 through 65589 require housing elements to contain:

- o An assessment of housing needs, and an inventory of resources and constraints relevant to meeting those needs;
- o A statement of the community's goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing; and
- o A program that sets forth a five-year schedule of actions the local government is undertaking or intends to undertake to implement the policies and achieve the goals and objectives of its housing element.

The assessment of need in the Housing Element must consider the city's role in meeting regional housing demand, especially demand for affordable housing. Section 65584 of the Government Code establishes a system for identifying each locality's "fair-share allocation" of regional need by income group.

Because these requirements necessitate far more detail than the rest of the General Plan, only a summary, containing all policies, is included here. The complete Vacaville Housing Element, including the data and analysis required by state law, as well as program policies, is bound separately.

Beneath the statutory requirements and guidelines, the underlying intent of a housing element is to set forth a program representing the jurisdiction's best reasonable effort to provide for its housing needs.

These needs are described in detail within the body of the Housing Element. In summary, they are:

- o There is a need to establish an appropriate ratio of jobs to housing and wages to housing costs.
- o Eleven percent of the housing stock is in need of structural repair or maintenance.

- o The 1989 median home price of \$122,000 as reported by the Northern Solano County Board of Realtors, is affordable by less than half of Vacaville's households.
- o Substantial down payments (of up to 30 percent of the purchase price) are required for a first-time home buyer to purchase a home due to rising housing costs.
- o The existing apartment vacancy rate is 2.3 percent, which is substantially lower than the generally recognized desirable rate of 5 percent.
- o There are over 1,700 very-low-income households requesting assisted housing services through the Section 8 Certificate and Voucher Programs, and funding has been available for approximately 25 new families each year.
- o Vacaville's emergency shelter programs need to be coordinated and evaluated.
- o The Association of Bay Area Governments has determined that there will be a need for 1,057 very-low- and 699 low-income housing units to be added to the housing supply between 1990-95.
- o Special needs households such as seniors, disabled persons, female-headed households, large families, and families of individuals incarcerated in the California Medical Facility face numerous obstacles in finding adequate housing. These include affordability; location near transportation, shopping, health services, child care, and recreation centers; and accessibility for the physically impaired.
- o Governmental and non-governmental factors such as growth and land use policies, availability of urban services, land and construction costs, cost of financing, and community concerns regarding the appearance and image of the City constrain the production of the full range of housing types for the full range of income levels.

Policies included in Section 2 of this plan, Land Use, deal directly with issues of residential land supply and relevant land use controls. Chief among these policies are the following:

- 2.1-I9 Maintain Vacaville as a free-standing community surrounded by foothills, farmland and other open space.
- 2.1-G8 Preserve the predominant single-family residential character of Vacaville while providing other housing opportunities. Protect established neighborhoods from incompatible uses.
- 2.1-G19 Continue code enforcement and provide assistance where needed to eliminate substandard buildings and improve the appearance of neighborhoods and commercial areas.
- 2.2-G1 Establish a long-term Planning Area, and within this area distinguish an agricultural service zone and an urban service zone.
- 2.2-G2 Establish a growth strategy for the urban service zone which matches residential growth with adequate public facilities. Plan the rate of commercial growth to ensure that it does not overburden the City.
- 2.2-G3 Ensure that scarce natural resources, such as water, are allocated and utilized to maximize community benefits, and manage growth so that the quantity and quality of public services and utilities within the City provided to existing businesses and residents will not drop below an acceptable level of service because of new development.
- 2.2-G6 Strive to maintain a reasonable balance between potential job generation and the local job market with a long-term goal of one job for each employed resident.
- 2.2-G11 Prepare and implement a planned growth ordinance with both short-term and long-term elements.
- 2.5-G2 Provide a housing mix of 60 percent single-family detached, 20 percent single-family with zero lot lines, duplexes, triplexes, mobile homes, and townhouses, and 20 percent garden apartments and condominiums.

- 2.5-G4 Broaden the choice of type, size, and affordability of single-family homes.
- 2.5-I3 In any development exceeding 400 units, require a mix of development types and/or densities, including a component of larger lots (at least 10 percent of the total).
- 2.5-I5 Encourage high density housing in the Downtown core area on the upper floors of mixed-use buildings and in mixed-use projects. Locations along arterial streets are preferred.

With these and the other growth management and land use policies establishing the basic regulatory framework, it remains for policies contained in the Housing Element to deal with the more fine-grained questions of providing housing. As required by Section 65583 of the Government Code, policies in this section seek to meet quantified housing goals. Table 7-1 charts these goals.

The policies listed concentrate on providing affordable housing for lower- and moderate-income families and individuals; housing for those with above-moderate income seems to need no encouragement; policies concerning housing density, design, and type belong more properly in the land use element. The principal assumption made is that the City will have to meet its housing need using local resources, since federal and state aid will not suffice and will probably continue to decline.

Four distinct subjects are addressed:

1. Construction and Acquisition
2. Rehabilitation and Conservation
3. Housing Assistance
4. Program Evaluation

All the policies below are contained in Section 6 of the Vacaville Housing Element.

TABLE 7-1
VACAVILLE QUANTIFIED AFFORDABLE HOUSING GOALS
 1990 to 1995

Program (Policy)	Units Per Year	5-year Total	5-year Total Units Affordable To Income Ranges*		
	Annual Total	Total	VLI	LI	MI
Construction and Acquisition					
Housing Opportunity Areas (7.1-I1)	20	100	0	50	50
Incentives/Innovative Housing (7.1-I2, I4)	79	395	75	145	175
Housing Mix (7.1-I3)	215	1075	90	235	750
Support Non-Profit Agencies (7.1-I5)	40	200	100	100	0
Redevelopment LMIH Fund (7.1-I8)	90	450	175	100	175
Mortgage Revenue Bonds and Tax Credits (7.1-I9, I10)	20	100	0	0	100
Rehabilitation and Conservation					
Below-Market-Rate Rehabilitation Loans (7.2-I1)	70	350	280	70	0
Housing Assistance					
Emergency Housing (Rent) Program (7.3.-I2)	30	150	150	0	0
Section 8 Certificates and Vouchers (7.3-I3)	50	250	250	0	0
Mortgage Subsidies (7.3-I4, I5)	20	100	0	0	100
Provide Emergency Shelter (7.1-I9)	10	50	50	0	0
Total	644	3,220	1,170	700	1,350

Note: There is considerable but unquantifiable overlap. The purpose of this Table is not to establish absolute goals, but to provide a means of measuring progress. Only policies intended to build or rehabilitate units or to assist households are included.

*VLI = very low income; LI = low income; MI = moderate income

It should be noted that the analysis of housing needs and affordability employs four household-income categories: very-low-, low-, moderate-, and above-moderate-income. In general, very-low-income is defined as 50 percent or less of the median income for a county, low-income as above 50 through 80, moderate as above 80 through 120, and above-moderate as above 120. Federal and state law and program guidelines refer to very-low- and low-income jointly as "lower-income".

To judge eligibility for state and federal housing programs, the United States Department of Housing and Urban Development (HUD) and the California Department of Housing and Community Development (HCD) make slight adjustments in unusually high- and low-income areas and in areas of high housing cost relative to incomes. Table 7-2 charts income limits published in March 1990 for Solano County for a family of four, and the consequent maximum affordable rents and purchase prices. It should be noted that only a small percentage of households have incomes at the upper end of each of these income categories; most cannot afford the maximum rent or sale price stated for each category.

TABLE 7-2
HOUSING AFFORDABILITY ANALYSIS
MODERATE- AND LOW-INCOME HOUSEHOLDS
March 1990

Household Income Category	Annual Income ¹	Maximum Affordable Rent ²	Maximum Affordable Purchase Price ³	
			with 10% downpayment	with 20% downpayment
Very-Low Income	\$19,450	\$486	\$55,409	\$62,335
Low Income	31,100	778	88,597	99,671
Median Income	38,900	973	110,817	124,669
Moderate Income	46,700	1,168	133,038	149,667

Notes: ¹Four-person family.
²30 percent of monthly income; does not include allowance for utilities.
³Assumes 30 percent of monthly income spent for housing, 10 percent of which is for insurance and other housing-related costs; 30-year fixed-rate mortgage at 100 percent. Does not include allowance for utilities.

Sources: United States Department of Housing and Urban Development; California Department of Housing and Community Development; and Blayney-Dyett.

7.1 CONSTRUCTION AND ACQUISITION

Guiding Policies

- 7.1-G1 Ensure a supply of housing of differing type, size, and affordability in order to meet Vacaville's housing needs.
- 7.1-G2 In conjunction with policies in the Land Use section of the Vacaville General Plan, ensure that an adequate supply of developable land is available to meet Vacaville's housing need, particularly for affordable housing.
- 7.1-G3 Remove constraints to the production and availability of housing to the extent consistent with other General Plan policies.
- 7.1-G4 Ensure the development and availability of housing appropriate for special needs groups.
- 7.1-G5 Establish development and construction standards that encourage energy conservation in residential areas. -
- 7.1-G6 Aggressively participate in all programs, state and federal, private and public, suitable for maintaining and increasing the supply of affordable housing.

Implementing Policies

- 7.1-II Continue to use Housing Opportunity Areas to grant density bonuses above the state-mandated minimum in return for an increased share of affordable units. Reevaluate specific requirements and income limits and revise in accordance with state law.

To date, only two projects, the Autumn Leaves assisted senior complex and a small, three-unit multifamily in-fill project, have successfully used the HOA policy. Requirements limiting HOAs to flat, in-fill land may be too restrictive. Also, criteria for the amount of bonus may need to be revised; 50 percent for less than 25 percent very-low and 100 percent for 25 or over seems extreme.

As of January 1990, Sections 65913, 65915, and 65971 of the California Government Code require localities to provide a 25 percent density bonus plus one other incentive to projects of five or more units with 20 percent of the total units affordable to lower-income households, or 10 percent to very-low, or 50 percent to senior and/or disabled households. The additional incentive may be omitted if the jurisdiction finds it unnecessary to maintain affordable rents. Affordable units produced are to remain so for 30 years, or 10 if no additional incentive is provided. Rents for units targeted for low-income households may not exceed 30 percent of 60 percent of the area median income; for very-low-income households, rents for targeted units may not exceed 30 percent of 50 percent of the area median.

- 7.1-I2 Amend or adopt regulations to grant incentives for developments with affordable housing.

Vacaville, with its flexible parking and street requirements, annual fee review, and "fast-tracked" review process, already facilitates developers, but should "get" more affordable housing in return. Also, a comprehensive incentive package would help fulfill the new state requirement (see above policy) for an ordinance detailing incentives to be provided in addition to density bonuses for projects providing a specified share of affordable housing.

- 7.1-I3 Amend the Housing Mix Ordinance to automatically exempt Urban High Density units. The City Council may continue to review, on a case-by-case basis, exemptions for affordable apartments, senior apartments and handicapped apartments.

The ordinance as it stands applies throughout the City and allows exemptions to be granted only for senior subsidized units, and handicapped units. The ordinance allows the City Council to exempt on a case-by-case basis units dedicated entirely to seniors/handicapped and low- and moderate-income households. This new policy tries to make projects in the downtown area more feasible by allowing mixed use projects and urban high density units to be automatically exempt from the ordinance.

- 7.1-I4 Encourage innovative housing, including mobile and manufactured homes, shared and congregate housing, and second units, by adopting regulations allowing placement in residential areas by right or use permit and by helping sponsoring organizations obtain federal and state funds and committing local funds where necessary and appropriate.

People with special needs often find "normal" housing inappropriate and are better suited to a range of housing and household alternatives usually described as "special" or "innovative." Among these are mobile and manufactured homes; shared homes, where a group of unrelated people, usually the elderly, handicapped, and single parents live together in a standard single-family home; congregate care homes, which provide seniors with individual apartments but communal dining, recreation, and medical care facilities; and second units, which provide individuals with small efficiency units of their own at less than the cost of a full apartment.

Several mobile home parks already exist, and two manufactured subdivisions have been built in the last few years in Vacaville. Second units could provide a valuable source of housing for single workers. Allowing second units in new construction would promote better overall design and perhaps increase the affordability of the primary unit by providing an additional income source.

Proposition 84 money includes \$25 million for single-room occupancy hotels (SROs) and \$15 million for rental housing for families and the elderly to include supportive services.

- 7.1-I5 Support the efforts of non-profit agencies to provide affordable housing and other housing-related services.

The City assisted in the formation of Vacaville Community Housing in November 1989 and will continue to support its efforts to increase and preserve the supply of affordable housing. The City also has three staff members on the steering committee of the Solano Affordable Housing Foundation, which is being formed. Furthermore, the City provides administrative assistance for the Vacaville Community Welfare Association's emergency housing program.

Support includes the use of City and redevelopment agency funds, assistance finding and acquiring sites, and technical aid.

- 7.1-I6 Set specific standards for senior and multifamily housing regarding density, design, parking, access, and open space.

Specific standards that recognize the special characteristics of various types of senior housing would facilitate its development.

- 7.1-I7 Provide for emergency and transitional shelter by investigating appropriate permanent funding, creating a working group of local service providers, charged with establishing a program and finding appropriate sites, and prescribe regulations for such shelters, including where they are to be allowed as of right and with use permits, and what conditions may be imposed.

This policy would seek to coordinate the activities of service groups and remove regulatory constraints.

- 7.1-I8 Continue to prepare an annual program to plan for the use of redevelopment agency Low- and Moderate-Income Housing Funds (LMIHF) for assisting in the construction of affordable housing, the rehabilitation of existing affordable housing and other identified means of expanding the stock of affordable housing, and write an action plan specifying how and when funds will be used.

The policy is to ensure LMIHF money is used for producing and preserving affordable units, and in a timely fashion.

- 7.1-I9 Apply to participate in mortgage-revenue-bond programs that provide tax-exempt low-cost financing to developers of projects making a portion of units affordable.

Congress has extended budget authority for housing tax-expenditure programs through September 1990. California's 1990 ceiling is \$1,453.2 million for private-activity bonds, and \$27.2 million for tax credits.

Mortgage revenue bonds (MRBs) may be used to finance the purchase or rehabilitation of single-family homes and rental units and construction, mortgage, and capital improvement loans for multifamily housing.

For multifamily housing, provisions of the federal Tax Reform Act of 1986 require 20 percent of the units to be occupied by households making 50 percent or less of the area median, or 40 percent by those households making 60 percent or less. In addition, rental projects must remain so for the life of the bonds or at least 15 years after half the units are initially occupied, and affordable units must remain so for at least 15 years after half the units are initially occupied.

For single-family bond issues, the clients must be first-time homebuyers making between 90 and 115 percent of the area median income, and the sale price of the home is limited to 90 percent of the area median or less. For Solano County, the price limit for 1990 is \$133,000 for new homes and \$126,700 for existing.

With the exception of bonds for non-profit groups, "503(c)(3)s", all issuers must request a bond allocation from the California Debt Allocation Committee (CDAC), which holds allocation meetings in February, April, June, and August of every year. According to a committee staff person, as of February 1989 the committee has already received \$755.0 million in applications. These applications include \$536.0 million for single-family bonds, \$132.0 million for mortgage-credit certificates (MCCs), and \$71.0 million for multifamily bonds.

In 1989, California as a whole used \$146.0 million in MCCs, \$496 million in single-family bonds, and \$467.7 million in multifamily, for a total of \$1,110.1 million in housing bond issues. None of these were in Solano County.

7.1.-I10 Support the use of Low-Income Housing Tax Credits.

Under the provisions of the 1986 Tax Reform Act, a 9-percent tax credit is available to rental-housing developers who make 20 percent of their project's units affordable to households making 50 percent or less of the area median income or 40 percent to those making 60 percent or less. The units must remain affordable for at least 15 years. In return, developers receive credits worth either 4 or 9 percent of the development cost of the affordable units, depending on whether or not the projects receive other federal subsidies. The credits are awarded each year for 10 years.

To receive a credit, developers must apply to the relevant local jurisdiction, which sends the approved application to the California Mortgage Bond and Tax Credit Allocation Committee (MBTCAC). California's tax credit allocation for 1990 is \$27.2 million.

- 7.1-II1 Continue to apply for federal and state housing program funds as available.

Although such funding remains scarce relative to need, Propositions 77 and 84, approved in 1988, have allocated \$450 million for various state housing programs.

- 7.1-II2 Continue to enforce California Title 24 energy requirements and encourage development and construction standards that promote energy conservation.

7.2 REHABILITATION AND CONSERVATION

Guiding Policies

- 7.2-G1 Maintain Vacaville's housing stock in sound condition.
- 7.2-G2 Preserve and protect historical and architectural resources.
- 7.2-G3 Take action to preserve existing housing and neighborhoods.
- 7.2-G4 Maintain the total number of affordable units, present and future, at price levels affordable to the intended income groups.

Implementing Policies

- 7.2-II Continue to operate and expand below-market-rate loan programs for the rehabilitation of housing occupied by lower-income owners and renters.

The Housing and Community Programs Division (HCPD) provides a variety of low-cost loans for rehabilitating affordable housing units. As of 1990, these programs include United States Department of Housing (HUD) Rental Rehabilitation, the California Deferred Payment Rehabilitation Loan Program (DPRLP), and the local Neighborhood Conservation Program (NCP), which is funded in part through redevelopment LMIHF money. Federal Community Development Block Grants (CDBG) help pay administrative costs for these programs.

Additional funds are being made available through new and existing programs under the provisions of Propositions 77 and 84.

7.2-I2 Continue to enforce the Condominium Conversion Ordinance.

Passed in 1982, this ordinance states that no applications for conversion will be accepted if the apartment vacancy rate is below 3 percent.

7.2-I3 Establish a Neighborhood Preservation Ordinance to encourage property maintenance and upgrading by setting minimum standards necessary to prevent blighting and setting up a mechanism for enforcement.

Property maintenance ordinances define "prohibited conditions" as including unsightly building exteriors, junk stored outside, and lack of landscaping. A city may issue an order to abate, and if the nuisance is not abated by the owner, the city may do so, and recover the cost through a lien on the property.

7.2-I4 Adopt appropriate measures to ensure the long-term affordability of units produced by local housing programs.

For ownership units, one possible control is a second mortgage providing for shared appreciation and an option to buy for the holder of the second. This allows the homebuyer to earn some equity, making obtaining original financing easier, while reserving a portion of the appreciation for the holder of the second, which can then be used to make either the same unit or others affordable to other households.

- 7.2-I5 Assist in maintaining the affordability of units produced through federal and state programs by working with appropriate organizations to identify units which may convert to market-rate rentals.

A nation-wide affordable housing crisis has emerged over the last few years: namely, contracts to keep units and projects affordable are reaching term. While first a problem for projects built with federal assistance, maintaining the affordability of assisted units is a challenge all jurisdictions must meet.

In recognition of this, a 1989 amendment to California Government Code Section 65583(a) requires local jurisdictions, by amendment to their housing elements by January 1992, to analyze existing housing developments that may convert to market rate within the next 10 years, and to provide a detailed listing of all such projects, a listing of all bodies that have the capacity to take over such projects and maintain their affordability, and an analysis of available federal, state, and local resources for that purpose.

Vacaville has at least seven rental projects built with federal or state assistance: the Rolling Greens, Vacaville Park Apartments, Aegean Apartments, Shasta Terrace, Autumn Leaves, Twin Oaks, and Spring Glenn, totaling approximately 900 units.

7.3 HOUSEHOLD ASSISTANCE

Guiding Policies

- 7.3-G1 Promote equal housing opportunity for all citizens.
- 7.3-G2 Attempt to provide direct assistance to households in need of housing.

Implementing Policies

- 7.3-I1 Work to ensure that individuals seeking housing in Vacaville are not discriminated against on the basis of age, sex, family structure, national origin, or other arbitrary factors.

Equal access to housing is protected by state and federal law. Discrimination on the basis of race, ethnic or national origin, religion or marital status is prohibited by the federal Civil Rights Act of 1968 and by Section 53 of the California Unruh Civil Rights Act. The federal Fair Housing Amendments Act of 1988 prohibits discrimination based on handicap and familial status. The Rumford Fair Housing Law (part of the California Fair Employment and Housing Act of 1980) also protects an individual's access to housing.

The California Supreme Court ruled that discrimination against children in housing is prohibited under the Unruh Civil Rights Act in its decision, Marina Pt. Ltd. v. Wolfson, (1982) 30 Cal.3d 721. The Fair Housing Amendments Act also prohibits discrimination against children. Mobile home parks and other developments designed specifically for seniors or the handicapped are exempt from these provisions against child discrimination.

In November 1987, the City established a Housing Counseling Service which provides information and referral to landlords, tenants, homeowners and homeless people on a wide variety of topics including landlord/tenant disputes, finding and securing houses, and housing discrimination. The Housing Counselor works closely with local churches, local non-profit agencies, the Solano Legal Assistance Agency and the federal Department of Housing and Urban Development to provide counseling services.

- 7.3-I2 Continue to support the Vacaville Community Welfare Association's (VCWA) emergency housing program.

The Vacaville HCPD provides outreach, intake, verification, and record-keeping services to the VCWA, which uses Federal Emergency Management Agency (FEMA) funds to grant money to families for one month's rent.

- 7.3-I3 Continue to operate and expand the HUD Section 8 certificate and voucher programs.

The HCPD administers these two programs which provide monthly rent subsidies to very-low-income families. At present, there are 253 certificate- and 184 voucher-holding households in Vacaville.

7.3-I4 Investigate the use of mortgage credit certificates.

These certificates, issued to first-time homebuyers making less than 115 percent of the median income, allow the homebuyers to deduct from their federal income tax liability an amount equal to a portion of their yearly interest payment. Unlike the standard mortgage interest rate deduction, which is subtracted from the adjusted income before calculating income tax owed, this credit is deducted from the actual money owed. The credits are in addition to the standard deduction. To issue MCCs, state and local governments must exchange some of their authority to issue mortgage revenue bonds.

7.3-I5 Evaluate opportunities for providing specific financial assistance for Vacaville job-holders seeking housing in the community.

Measures might include mortgage insurance funded in part by major employers and other private and public funding sources and one-time contributions toward moving costs. Another option would be to allocate a share of inclusionary units to Vacaville workers, or assign workers higher priority in applying for such units. Also, projects seeking assistance could be ranked in part on their assistance to Vacaville workers.

7.3-I6 Continue to implement the relocation plan for households displaced as a result of public action.

7.4 PROGRAM EVALUATION

Guiding Policies

- 7.4-G1 Actively evaluate, on a regular basis, the success of housing programs in meeting Vacaville's housing needs.

Implementing Policies

- 7.4-I1 Regularly compile and analyze data relevant to housing need.

Such information should include the status of current programs in providing housing by income groups, use of funds to meet housing need, and market indicators such as land available and housing cost and availability. Cooperative efforts with other local, state, and federal agencies to track various indicators of housing need should be considered.

Vacaville already compiles inventories of current development projects, conducts rent surveys, and ascertains vacancy rates. The intention of this policy is to place such efforts on a more formal and comprehensive basis to ensure sound information is available for making sound decisions.

- 7.4-I2 Evaluate the success of programs in meeting housing needs and goals in a regular and comprehensive fashion.

To be effective, housing policies must be constantly monitored and, when necessary, revised. This policy seeks to make policy analysis, usually conducted every five years during housing element reviews, a more regular and frequent process, to ensure policies are revised quickly enough.

8 CONSERVATION ELEMENT

For many in Vacaville, the City's open-space setting is its most precious natural resource. General Plan policies preserving open space are in the Open Space Element; the Conservation Element contains policies for protecting and managing wetlands, creeks, wildlife, vegetation, and air quality. These policies are general, for the most part. Resource-protection regulations enacted by ordinance will establish specific regulations to protect natural features and ensure compatible project design.

Requirements for the Conservation Element are established in Government Code (Sec. 65302[d]). This part of the General Plan is to address "the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources." Water as a hydraulic force, commercial fisheries and harbors are not issues in the Planning Area, and therefore not addressed in this Element.

In addition to the City's efforts, county, state and federal agencies have responsibility for environmental protection. The environmental review process required by the California Environmental Quality Act (CEQA) examines the potential effects of individual projects on the environment.

8.1 CREEKS AND WATERSHED PROTECTION

In some locations in the Planning Area, riparian (streamside) vegetation, including large trees, remains even though development encroaches almost to the stream banks. Outside the developed area, streams and associated riparian areas function as both wildlife habitats and drainageways. The Plan seeks to preserve and enhance creeks and their associated vegetation. Riparian woodland and associated undergrowth serve as habitat and cover for wildlife, and also retard creek erosion.

Section 9.2, Flooding and Storm Drainage, includes policies on flood control and drainage.

Guiding Policies

- 8.1-G1 Preserve and enhance Vacaville's creeks for their value in providing visual amenity, drainage, and wildlife habitat.

- 8.1-G2 Minimize cost and hazard to homeowners created by creeks infringing on private property.
- 8.1-G3 Where possible, integrate creeks with trails and other recreational open space. Encourage provision of public access to creek corridors.
- 8.1-G4 Preserve and protect water resource areas, including the Alamo, Encinosa, Gibson and Ulati Creek watersheds.

Implementing Policies

- 8.1-I1 Implement the City Creekways Policy in all new development approvals to provide for maximized utility of the creekway areas.
- 8.1-I2 Continue to impose creek setback standards on new development.
- 8.1-I3 Discourage culverting of creeks of significance to the City.
- 8.1-I4 Develop standards requiring protection of creekways during construction, and restoration of creekways after construction.
- 8.1-I5 Protect existing stream channels by requiring buffering or landscaped setbacks and storm runoff interception.
- 8.1-I6 Consider the establishment of maintenance districts to ensure uniform maintenance for selected channels and creeks.

8.2 WILDLIFE AND VEGETATION

More than a century ago, the area which is today Vacaville, located along the western edge of the Central Valley and bordered by the Vaca Mountains, was constituted of valley grasslands gradually ascending to valley and foothill woodlands west of town. To the north, the valley habitat ascends along a narrow tongue of topographic relief into the English Hills. While urban and agricultural development have transformed much of the Vacaville Planning Area, a variety of remnants of native habitats remains, the net result of which is to favor Vacaville with a diversity of species. With scientists estimating that,

globally, hundreds of species per year become extinct, Vacaville's species diversity is an asset and a valued resource.

Within the 100-square-mile Planning Area, vegetation ranges from tiny, unique vernal pools species, such as Goldfields, to rows of orchard crops and street trees. Wildlife resources range from the potential presence of the federally-designated "Threatened" Valley Elderberry Longhorn Beetle, which inhabits the Valley Elderberry Bush and is present in many of the riparian corridors in the Planning Area, to larger species, such as the black-tailed deer, which may range throughout the riparian corridors, outside the urbanized areas. Recreational fishing takes place at the Lagoon Valley Regional Park. The Park is identified as a fishery by the California Department of Fish and Game, and managed as such by the County Parks Department. Natural wetlands exist in limited quantities in some portions of the Planning Area.

Plan policies are intended to protect natural areas, particularly riparian corridors, although conversion of open space to urban uses necessarily decreases available habitat.

Guiding Policies

- 8.2-G1 Protect natural environments in recognition of their importance as wildlife habitats and visual amenities.
- 8.2-G2 Manage open space in a manner consistent with wildlife protection.
- 8.2-G3 Work with the Solano County Parks Department and the California Department of Fish and Game to develop appropriate policies to maintain recreational fishing at Lagoon Valley Regional Park.

Implementing Policies

- 8.2-I1 Require preservation or, where preservation is not possible, replacement of riparian vegetation.

Resource protection regulations should address conservation of riparian vegetation.

- 8.2-I2 Minimize removal of woodland habitat.

- 8.2-I3 Provide wildlife corridors, where feasible, to enable free movement of animals and minimize wildlife-urban conflicts.
- 8.2-I4 Continue to implement the City's existing regulations which protect mature trees and existing natural non-agricultural trees.
- 8.2-I5 Require that, as appropriate, new Policy Plans contain a resource management component.
- 8.2-I6 Identify areas of wetlands at the earliest possible stage of development application processing. Policies to protect and preserve wetland habitats shall be contained in the Resource Management section of applicable Policy Plans.

8.3 AIR QUALITY

Vacaville's topography and distance from coastal ventilation create the potential for high concentration of air pollutants, which are primarily caused by motor vehicles. The monitoring records (Table 8-1) for the air quality monitoring station located in Vacaville show that Vacaville has had generally good air quality for the the past few years. The only pollutants for which standards have been exceeded annually during this period are ozone (O₃), which exceeds the federal standard generally no more than two days per year, and total suspended particulates (TSP), which exceeded the state standard seven days between 1985 and 1988.

The Yolo-Solano Air Pollution Control District (YSAPCD) is responsible for monitoring and enforcing standards in the Planning Area. The Sacramento Area Council of Governments (SACOG) is responsible for preparing the Air Quality Management Plan, which establishes policies and programs to implement state and federal standards, and recommends policies for local governments.

Programs to reduce hydrocarbon emissions, precursors of ozone, include: use of available control technology on existing sources; new source review for new stationary sources; the motor vehicle inspection and maintenance program; and transportation system improvements. At the local level, the District identifies the land-use and growth decisions embodied in the General Plan as being of vital importance in air quality protection. The Interim Air Quality Plan has identified a broad list of actions for local governments. However, this plan has not shown what actions are necessary to achieve air quality standards. This will require completion of an air quality model, scheduled for 1992.

TABLE 8-1
AMBIENT AIR QUALITY
VACAVILLE-MERCHANT STREET STATION
1985-1988
(Days Standards Were Exceeded)

Pollutant	Standard ^a	1985	1986	1987	1988
Ozone	1 hr. \geq 0.10 ppm (S)(1985-87)	--	0	12	--
	1 hr. $>$ 0.09 ppm (S)(1988)	--	--	--	2
	1 hr. \geq 0.12 ppm (N)	0	0	0	0
	Max. 1-hr. Conc. (ppm)	0.07	0.09	0.12	0.10
Total	24 hrs. \geq 100 ug/m ³ (S)	2	3	1	1
Suspended	24 hrs. \geq 150 ug/m ³ (N)	0	1	0	0
Particulates	24 hrs. \geq 260 ug/m ³ (N)	0	0	0	0
	Max. 24-hr. Conc. (ug/m ³)	97	82	107	130
	Number of Samples	61	61	61	44

Notes: ^a(S), State Standard; (N) National Standard; ppm, parts per million; ug/m³, parts per cubic meter

Source: California Air Resources Board, 1985-88. Annual summaries of Air Quality Data; and Yolo-Solano Air Pollution Control District.

Guiding Policies

- 8.3-G1 Maintain good air quality in the Vacaville Planning Area.
- 8.3-G2 Cooperate with regional agencies in developing and implementing air quality management plans.

Implementing Policies

- 8.3-I1 Encourage project design that conserves air quality and minimizes direct and indirect emissions of air contaminants.
- 8.3-I2 Encourage transportation modes that minimize motor vehicle use and resulting contaminant emissions.

The Transportation Element includes Transportation Systems Management (TSM) policies designed to reduce emissions and alleviate traffic congestion.

- 8.3-I3 Consider carbon monoxide levels at intersections when evaluating the need for intersection improvements.

8.4 WATER CONSERVATION

Currently, the City has "standby authority" to impose water conservation during emergencies. To reduce growth in water consumption, an ongoing water conservation policy should be implemented by the City.

Guiding Policies

- 8.4-G1 Encourage and support water conservation programs.
- 8.4-G2 Protect and conserve the City's well field.
- 8.4-G3 Coordinate water conservation and quality programs with the Solano Irrigation District and other appropriate water agencies.

Implementing Policies

- 8.4-I1 Enact local regulations requiring water conservation.
- 8.4-I2 Require development proposals to incorporate water-conserving landscape designs.

- 8.4-I3 Establish a water conservation landscape standard, which addresses the use of drought-tolerant plant materials, for public buildings, parks and recreation facilities.

Use of native plant and other low water-using landscaping materials, and use of reclaimed water are possible ways to conserve the domestic water supply without sacrificing parks, golf courses, and public areas.

- 8.4-I4 Enact local regulations to protect and monitor the wells in the City's well field.

- 8.4-I5 Do not allow development that would adversely affect the City's well field.

- 8.4-I6 Whenever possible, use non-treated water for irrigation in large landscaped areas.

8.5 HISTORIC AND ARCHAEOLOGIC RESOURCES

Solano County is known for having had in prehistoric times a relatively high population density. The Patwin peoples controlled the area west of the Sacramento River to the crest of the Coast Ranges. The Patwin lived by hunting, fishing, and gathering, and inhabited semi-permanent villages, the remnants of which have been found in the hills around Vacaville. The archaeological record reflects this density, as recorded by the California Archaeological Inventory (CAI), which lists over two dozen prehistoric archaeological sites within the Planning Area. An estimated 30 percent of the Planning Area has been surveyed. The CAI believes that additional prehistoric cultural resources exist within the Planning Area, most likely to be found in the valleys, at the base of foothills, and on mid-slope terraces along watercourses.

In addition to prehistoric resources, the City of Vacaville contains nearly 200 identified historic structures, including the Peña Adobe, the Will H. Buck House, and the Vacaville Town Hall. All three of these structures are also listed on the National Register of Historic Places. The CAI believes that additional historic resources associated with settlement activities of the early 1800s exist within the unsurveyed portions of the Planning Area. The Downtown area has been designated as a historic district with design standards to enhance the historical character of this central Downtown.

Historic and archaeological resources are offered some protection under state law if deemed unique. Unique, as defined in the Public Resources Code, includes those resources which contain information needed to answer important scientific research questions if there is demonstrable public interest in the information; those resources which have a special and particular quality, such as the oldest of their type and the best available of their type; and those which are directly associated with a scientifically recognized prehistoric or historic person or event.

Guiding Policies

- 8.5-G1 Continue to protect historic sites and archaeological resources for their aesthetic, scientific, educational, and cultural values.
- 8.5-G2 Continue to protect the historic value of the Downtown area.

Implementing Policies

- 8.5-I1 Working in conjunction with the California Archaeological Inventory, review each proposed development project to determine whether the site contains known prehistoric or historic cultural resources and/or to determine their potential for as-yet-undiscovered cultural resources.
- 8.5-I2 Require that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation, if feasible.

The City's Historic Preservation Ordinance mandates the maintenance of designated buildings and the review of any changes to building exteriors or building demolitions.

- 8.5-I3 Continue to encourage the renovation of designated historic structures in the Downtown historic district to preserve the architectural, historical, and cultural significance of those buildings; continue to require new buildings in the Downtown historic district to be complementary to the character of the existing buildings.
- 8.5-I4 Consider the creation of a Historic Preservation District for the residential areas west of Downtown.

9 SAFETY ELEMENT

The Safety Element of the General Plan is to provide information "for the protection of the community from unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, and dam failure; slope instability leading to landslides, subsidence and other geological hazards; flooding; wildland and urban fire; and hazardous material accidents" (Gov. Code, Sec. 65302 [g]).

9.1 GEOLOGIC AND SEISMIC HAZARDS

In the Vacaville planning area, as in most of the Bay Area, liquefaction potential and landsliding due to seismic activity are significant constraints to development. USGS geologic mapping and maps should be consulted for specific locations of fault activity and ground instability.

Nearly all earthquake damage is due to ground shaking and the secondary effects of ground shaking, including ground failure and fire damage. Figure 9-1 shows relative susceptibility to landsliding as determined by overlaying geologic units and slope, while Figure 9-2 designates areas susceptible to liquefaction. Only the flat floors of the valleys are generally stable. Much of the land which is marginally to generally unstable is designated as Open Space.

Guiding Policies

- 9.1-G1 Investigate and mitigate geologic and seismic hazards or locate development away from such hazards in order to preserve life and protect property.
- 9.1-G2 Require financial protection for public agencies and individuals as a condition of development approval where geologic conditions indicate a potential for high maintenance costs.
- 9.1-G3 Give primary consideration to geologic conditions in the selection of land use and in the design of development in Vacaville. Retain high-risk areas in low-occupancy or open forms of use where potential risks are unmitigable.

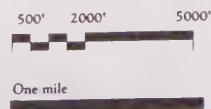
- 1 Least Susceptible Area
- 2 Marginally Susceptible Area
- 3 Generally Susceptible Area
- 4 Most Susceptible Area
- Landslide Area
- Fault Line (Approximate location)
- Fault Line (Concealed)

1. Other landslides not shown on map

See text for category descriptions

Source: Preliminary Landslide Hazard Map No. 14, Relative Landslide Susceptibility Map Plate No. 14a, Geologic Map Plate 14c, State of California, Division of Mines and Geology, by Hasmukh H. Maymudar, 1968.

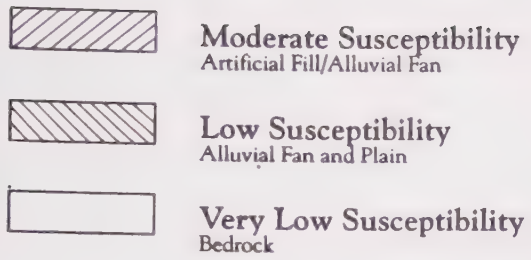
See Vacaville General Plan Diagram for correct (i.e. existing) alignment of Pleasant Valley and Cherry Glen roads.



Vacaville - Relative Susceptibility to Landsliding

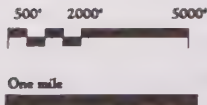
Figure 9 - 1





Source: USGS Professional Paper 943: Flatland Deposits - Their Geology and Engineering Properties, 1979.

See Vacaville General
Plan Diagram for
correct (i.e. existing)
alignment of
Pleasant Valley and
Cherry Glen roads.



Vacaville Liquefaction Potential

Figure 9 - 2

Implementing Policies

9.1-I1 Evaluate proposed extension of urban or suburban land uses into areas characterized by slopes from 15 to 25 percent and/or generally unstable land with regard to the geologic and soil hazards prior to a land-use decision, including General Plan amendments, rezoning, or project approvals.

9.1-I2 Analyze proposed development sites at the earliest stage of the detailed planning process to determine geologic suitability. The analysis should include the structural engineering for the actual site and possible impacts of the project on adjacent lands.

If a project is allowed to proceed through the approval process before conditions are fully known, adequate mitigation may be more difficult to achieve. Information available for preparation of the General Plan map is not sufficiently detailed to allow a presumption of geologic suitability in all hillside areas designated for residential or other urban uses.

9.1-I3 Require geotechnical studies prior to approval of rezoning, specific plans, or subdivision maps in areas of low damage susceptibility designated 2 through 4 and areas of high damage susceptibility as shown on the Relative Susceptibility to Landsliding Map (Figure 9-1) within a quarter-mile of a known fault. Require comprehensive geologic and engineering studies of critical structures regardless of location.

Critical structures are those most needed following a disaster. They include utility centers and substations, hospitals, fire stations, police and emergency communications facilities, and bridges and overpasses. Flood-hazard potential makes any dam a critical structure.

9.1-I4 To the extent practicable, do not allow critical facilities, structures involving high occupancies, and public facilities to be sited in areas of high damage susceptibility. Where such location is deemed essential to the public welfare, these structures will be sited, designed and constructed with due consideration of the potential for earthquake damage due to ground shaking, associated ground deformation, seismically triggered flooding, liquefaction and landslide.

- 9.1-I5 Ridges and slopes at or exceeding 25 percent shall remain undeveloped in order to maintain agricultural grazing areas, protect the public health and safety and to provide for community separation or open space.
- 9.1-I6 Appoint a registered engineering geologist to be available at the discretion of the City Engineer to review reports submitted by applicants.
- 9.1-I7 Do not locate structures intended for human occupancy over an active fault or potentially active trace. To the extent practical, do not locate such structures over the trace of an inactive fault. Allow roads to be built over active faults only where alternatives are impractical.
- 9.1-I8 Establish setbacks from active and potentially active fault traces for structures intended for human occupancy.
- Setback areas (ordinarily 100 feet, 50 feet for a single-story wood frame building) should be occupied by uses that could experience displacement without endangering large numbers of people. Examples are landscaped areas, parking lots, and noncritical storage.*
- 9.1-I9 Require preparation of a soils report prior to issuing a building permit, except where the Building Inspector determines that a report is not needed.
- The report would not be necessary for minor additions to buildings or where soils' characteristics are well known.*
- 9.1-I10 Limit cut slopes to 2:1 (50 percent slope) except where an engineering geologist can establish that a steeper slope would perform satisfactorily over the long term. Where practicable, require more gentle slopes than the 2:1 standard. Encourage use of retaining walls, rock-filled crib walls, or stepped-in buildings as alternatives to high cut slopes.
- Flatter slopes also are more adaptable to revegetation and are less likely to have an engineered look.*

- 9.1-II1 Require contour rounding and revegetation to preserve natural qualities of sloping terrains and mitigate the artificial appearance of engineered slopes, and control erosion.

Plant materials should not be limited to hydroseeding and mulching with annual grasses. Trees add structure to the soil and take up moisture while adding color and diversity.

- 9.1-II2 Consider forming geological hazard abatement districts or other methods to abate geologic hazards prior to development approval, where appropriate, to ensure that geotechnical mitigation measures are maintained over the long term, and that financial risks are equitably shared among owners and not borne by the City of Vacaville.

Without such risk-sharing, an individual homeowner could suffer disastrous loss, and a landslide could cause damage to a street exceeding the City's annual street maintenance budget.

- 9.1-II3 Evaluate the feasibility of implementing a hazard reduction program for existing development in high-risk zones. This would include inspection of structures for conformance with the Building Code giving priority for inspection to emergency and critical facilities, older structures and public facilities.

- 9.1-II4 Adopt comprehensive standards for hillside developments to guide the review of new projects.

9.2 FLOODING AND STORM DRAINAGE

The Planning Area includes two major drainage areas formed by Alamo, and Ulatis creeks. Primary tributaries into these creeks are Laguna and Encinosa creeks into Alamo Creek, and Horse and Gibson Canyon creeks into Ulatis Creek. The existing drainage system is largely composed of open channels fed by a combination of street runoff and underground storm drains. Inundation of areas due to tsunami or seiche was determined to not be an issue in the planning area.

The creeks flow in a general east-southeasterly direction and ultimately drain to the Sacramento River via Cache Slough.

These creeks are generally in their natural state and alignment through the City. The channels are generally unlined and vary considerably in width and depth. There is one existing reservoir, Lagoon Valley Lake, which is on a tributary to Laguna Creek, draining a portion of Lower Lagoon Valley. Under existing conditions, considerable amounts of overbank flow occur during major storms in areas where channel or bridge capacities are exceeded. The overbank flows generally occur as shallow ponding, which can be accommodated under existing undeveloped conditions.

Downstream of the City, the creeks were improved by the U.S. Soil Conservation Service in the 1960s to provide a 10-year level of protection for the agricultural areas east of the City. The improved channels of Alamo and Ulati Creeks downstream of the City are already at maximum capacity and do not have any available capacity to handle increased runoff from new development.

Development of the General Plan will increase peak flows in the creeks due to greater site runoff and elimination of existing ponding areas. The higher peak flows will impact not only the creeks within the City but also the downstream improved channels.

The most recent mapping of areas subject to flooding, shown in Figure 9-3, was commissioned by the Federal Emergency Management Agency (FEMA) as part of the revision of the Flood Insurance Rate Maps (FIRM). This shows the boundaries of the 100-year flood plain, including the floodway into which no encroachment should be permitted, and the flood fringe where some development may be allowed. These maps were used to delineate areas that must be maintained as open space for purposes of flood control. FEMA is in the process of updating these maps, scheduled for release in 1992. These maps will very likely show a different 100-year flood plain than the existing maps. The existing maps may understate the 100-year flood plain.

The City is responsible for responding to drainage maintenance in incorporated areas. The Solano County Water Agency (formerly the Solano County Flood Control and Water Conservation District) is responsible for flood control maintenance of the improved channels.

The major proposed drainage improvements for the General Plan consist of upstream reservoirs on Ulati and Alamo creeks located in the Vaca Mountains east of the City. These improvements are consistent with the recommendations for alternative plans for future conditions discussed in the Ulati Creek Watershed Study (February 1990). The proposed upstream reservoirs are shown on Figure 9-3 and are listed in the following table.



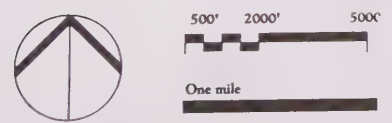
Limit of 100-Year Flood

Source: Federal Emergency Management Agency, National Flood Insurance Program Maps, 1982. Vacaville Planning Staff, 1990. FEMA update of map, due in 1992, may show larger 100-year flood limits in some areas.

Upstream Detention Reservoir proposed on Ulatis Creek.

Proposed Upstream Detention Reservoirs

See Vacaville General Plan Diagram for correct (i.e. existing) alignment of Pleasant Valley and Cherry Glen roads.



Vacaville Flood Hazard

Figure 9 - 3

PLANNING AREA BOUNDARY

TABLE 9-1
PROPOSED UPSTREAM RESERVOIRS

Flood Control Reservoir Location	Approximate Flood Control Storage Volume (Rounded to the nearest 50 acre-feet)
On Ulatis Creek upstream of Pleasants Valley Road	200
On Encinosa Creek upstream of Pleasants Valley Road	150
On Laguna Creek upstream of Cherry Glen Road	250
On Alamo Creek at Gates Canyon	400

Note: The upstream reservoirs would provide at least a 10-year flood level of protection.

Source: Camp, Dresser & McKee, Inc.

The proposed drainage improvements focus on Alamo Creek, with its tributaries Encinosa and Laguna creeks, and Ulatis Creek. These creeks experience flooding problems under existing conditions, and would experience greater problems under the General Plan unless the proposed improvements are implemented. The other major creeks within the City planning area, Horse Creek and Gibson Canyon Creek, with planned detention, are not anticipated to experience problems with buildout of the General Plan.

The upstream reservoirs would reduce the 10-year peak flows upstream of existing and proposed development. The proposed locations of the upstream reservoirs, as shown on Figure 9-3, could be modified if necessary so long as the same hydraulic effect (peak flow attenuation) could be achieved downstream. The upstream reservoir locations would minimize disruption and inconvenience during construction. The upstream reservoirs would minimize channel and structure improvements through Vacaville. In addition, it would be possible to consider designing the upstream reservoirs to also attenuate the peak flows of less frequent storm events, such as the 100-year storm, in order to provide a higher level of protection for the City.

In the interim, until the upstream reservoirs are constructed, on-site detention by new development on a case-by-case basis is required. New development, involving new drainage directly into the creek system, where practical, should not increase the 10-year and 100-year peak runoff from the site between pre-development and post-development conditions (due to higher peak flows from the site, filling or building within overflow areas, or changing flow paths). In some cases, depending on the sizes and locations of proposed developments, it might be advantageous for a group of developers to work together to provide a common detention basin serving several developments.

If all the upstream reservoirs in the Vaca Mountains are not built at the same time, staged implementation (of one or several locations) would provide incremental benefits until all reservoirs could be constructed. However, all the upstream reservoirs are needed to mitigate fully existing problems and future impacts from new development.

The upstream reservoirs would provide at least a 10-year level of protection. However, new development in Vacaville must provide a 100-year level of protection to meet certain criteria such as: ensuring that finished floor elevations of structures are above the 100-year water surface elevation; and ensuring that new development does not worsen downstream conditions for the 100-year peak flows. New development also is responsible for all necessary in-tract drainage improvements.

Guiding Policies

- 9.2-G1 Locate development outside mapped flood-prone areas unless mitigation of flood risk is assured.
- 9.2-G2 Continue to develop a comprehensive system of drainage improvements to minimize flood hazard.

- 9.2-G3 The additional runoff caused by development shall be mitigated.

Implementing Policies

- 9.2-I1 Develop a financing plan and construct upstream detention flood reservoirs.

The merits of large versus small flood detention basins shall be evaluated.

- 9.2-I2 Evaluate storm-drainage needs for each project in the context of demand and capacity when the drainage area is fully developed. Require on-site detention until upstream reservoirs are constructed and/or other mitigation of the project's impacts on the storm drainage system appropriate to the project's share of cumulative effect. In the Alamo Creek watershed upstream of Peabody Road, which includes Alamo, Laguna and Encinosa creeks, require post-development 10-year and 100-year peak flows to be reduced to 90 percent of predevelopment levels. For the remainder of the study area, for development involving new connections to the creeks, peak flows shall not exceed predevelopment levels for a 10- and 100-year peak flow.

This is required to reduce downstream flood hazard.

- 9.2-I3 Continue to cooperate with the Solano County Water Agency on developing a comprehensive stormwater management program to accommodate additional development outside the existing urban area.

- 9.2-I4 Assure through a Master Drainage Plan and development ordinances that proposed new development adequately provides for development of on-site and downstream off-site mitigation of potential flood hazards and drainage problems and require development fees to fund the required improvements.

- 9.2-I5 Encourage the formation of flood control assessment districts or consider fees for those areas in which flooding and drainage problems exist, to mitigate flooding through physical improvements.

9.3 WILDLAND AND URBAN FIRES

Fire hazard could be increased by General Plan proposals that increase the number of homes adjoining open space. The hills surrounding Vacaville are covered with trees and brush which, as is normal for the Bay Area and much of California, are brown and dry much of the year. This creates an extreme fire hazard for development on steep slopes and high hazard in adjacent areas, according to the wildland fire rating system of the California Division of Forestry. (See Figure 9-4)

The fire hazard severity rating system used in Figure 9-4 is based on two sources. The first is based on a method specified by the State of California Resources Agency, Department of Conservation, Division of Forestry, in a well-known 1973 publication, *A Fire Hazard Severity Classification System for California's Wildlands*. This system determines the rating by considering three factors locally: slope, ground cover, and weather conditions, and is commonly used within Local Responsibility Areas. The second is the State of California, Department of Forestry and Fire Protection's classifications, as illustrated on the Department's Fire Hazard Severity Zone map; the most recent available version of Vacaville and vicinity is 1985. The map identifies State Responsibility areas. The method is based on a version of the rating system mentioned above, with the addition of factors such as history of fires in the area.

Guiding Policies

- 9.3-G1 Reduce the risk of wildfires by implementing policies restricting development in Extreme and High Hazard areas.
- 9.3-G2 Ensure adequate funding is available to provide fire protection services, equipment, and maintenance as new development takes place.

Implementing Policies

- 9.3-II Establish Mello-Roos Community Facilities districts or other funding mechanisms to provide standby fire protection services if necessary because adequate funding will not otherwise be assured.

- Extreme/Very High Hazard Area
- High Hazard Area
- Moderate Hazard Area
- Boundary of State Responsibility Area for Fire Protection (subject to adjustment)

Source: USGS Topological Maps; State and Local Responsibility Area Maps for Fire Hazard Severity, 1985; A Fire Hazard Severity Classification System for California's Wildlands - Department of Conservation, Division of Forestry, 1973.



- 9.3-I2 Revise development standards in the zoning ordinance, as appropriate, to reduce the risk of structure fire in extreme or high fire danger areas.

The Department of Forestry recommends enforcement of strict building codes, implementation of fire safe practices, proper road construction, and adequate water systems.

- 9.3-I3 Coordinate fire protection services with the other agencies to ensure minimum coverage for all areas within Vacaville's Planning Area.

- 9.3-I4 Provide adequate access to and fire breaks adjoining open space areas subject to fire hazard as part of new developments.

9.4 HAZARDOUS MATERIALS

Solano County has taken the lead in preparing and adopting a hazardous waste management plan for all wastes projected to be generated in the County.

Recent state legislation requires all businesses to prepare an inventory of hazardous materials they use and store. The County's Office of Emergency Services will receive this information and distribute it to local health and fire protection agencies. The Vacaville Fire Department also conducts its own hazardous materials information disclosure program.

Guiding Policies

- 9.4-G1 Work with Solano County and other public agencies to inform consumers about household use and disposal of hazardous materials.
- 9.4-G2 Cooperate with Solano County on implementation of the Hazardous Waste Management Plan and review proposals for hazardous waste facilities for consistency with that Plan.

Implementing Policies

- 9.4-I1 Do not encourage industries which rely extensively on use of hazardous materials unless an acceptable use, storage and disposal program is approved by the appropriate agencies.

- 9.4-I2 Ensure that development proposals involving hazardous waste facilities are consistent with the Solano County Hazardous Waste Management Plan.
- 9.4-I3 Continue to implement a hazardous materials information disclosure program.

9.5 DISASTERS

The Solano County Office of Emergency Services is working on a Multiple Hazard Functional Planning Guide that will assess hazards, assign responsibilities, and prescribe evacuation routes. This could serve as a foundation for further planning.

Guiding Policies

- 9.5-G1 Provide a safe environment and ensure the safety of Vacaville residents.

Implementing Policies

- 9.5-I1 Adopt a comprehensive disaster response plan in coordination with adjoining communities. The plan should include procedures to follow after a major earthquake, wildland fire, or hazardous substance event.
- 9.5-I2 Work with adjoining jurisdictions to coordinate and implement a disaster response plan.

10 NOISE ELEMENT

The Noise Element, as required by the State, is intended to protect the health and welfare of the community by promoting community development which is compatible with noise standards. Fundamental concepts of environmental noise are described, followed by a summary of existing and projected future noise levels, monitoring and studies, noise mitigation measures, guidelines for land use and noise compatibility, and policies. The quantification methods and compatibility standards contained in this Element comply with State Office of Noise Control guidelines.

10.1 EXISTING AND FUTURE NOISE LEVELS

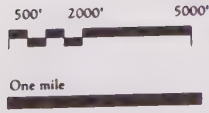
By far the most significant noise source throughout the Vacaville area is I-80 running northeast/southwest through the center of the City. Noise from the freeway is pervasive and generally dominates all other noise sources within 1/2 mile. The secondary noise sources include I-505 and local arterial streets such as Vaca Valley Parkway. It should be noted that the Vacaville Gliderport is anticipated to cease operations by the end of 1991. Additionally, the Nut Tree Airport produces a slight noise exposure increase in the agricultural property immediately off the end of the runway, while the Vacaville Gliderport produces no discernable noise exposure impact. Likewise, the Southern Pacific Railway produces very immediate local impact to adjacent residences, but does not produce a pervasive noise impact due to the relatively infrequent rail operations and existing use of noise barriers.

The noise exposure contours shown in Figure 10-1 were developed using traffic data for the freeway and arterials. This information includes traffic volumes, percentage of truck activity, and traffic speeds. Noise attenuation was computed for average terrain conditions. Noise contours in Figure 10-1 are given in terms of community noise in decibels (dB) and are day/night averages (DNL), that take into account increased sensitivity to noise during nighttime hours. Sound levels between 10 p.m. and 7 a.m. are penalized 10 dB. The dB scale is logarithmic; a 3 dB difference is discernable to most people and a 10 dB increase is subjectively heard as a significant increase. The mapped contours do not show the effect of existing sound walls, intervening buildings or topography. Actual conditions may be better. For example, a residential use between the 60 and 65 contours may be exposed to an DNL closer to 60 dB if there are buildings between it and the noise source.



Noise Exposure Contour - DNL*

*Day/Night Average Noise Level in Decibels



Vacaville Noise Contours

Figure 10-1

The Airport noise exposure contours for Nut Tree and Travis airports are shown in Figure 10-2 and were taken directly from the Airport Land Use Commission noise reports contained within the respective Airport Land Use Plans. The predicted noise exposure was then checked by field measurements and used to calibrate the noise exposure model. As Figure 10-2 shows, the Nut-Tree Airport has a fairly significant impact on future land uses near the airport because of the noise contours. The Travis Air Force Base does not impact the proposed urban area of the City in terms of noise impacts; however, lands to the east and south of the proposed urban area are significantly impacted by noise from the Air Force Base.

Future noise exposure contours throughout Vacaville were developed similarly to those for the existing conditions and are based on future traffic information. The future noise environment throughout Vacaville will continue to be dominated by I-80 through the center of the City. A substantial increase in the traffic operations increases the extent of noise exposure over existing conditions. However, this effect is somewhat offset by the fact that the traffic during peak-hour conditions will travel at reduced speeds, due to congestion, which reduces noise exposure. The overall combined effect of these two offsetting conditions is a moderate increase in noise exposure from I-80 traffic. Additionally, increases in traffic on arterials throughout Vacaville is expected, but this increase is moderate and the noise exposure increases are expected to be small and will be generally unnoticed. No significant change in Nut Tree Airport nor railway operations was assumed for the future condition.

10.2 FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

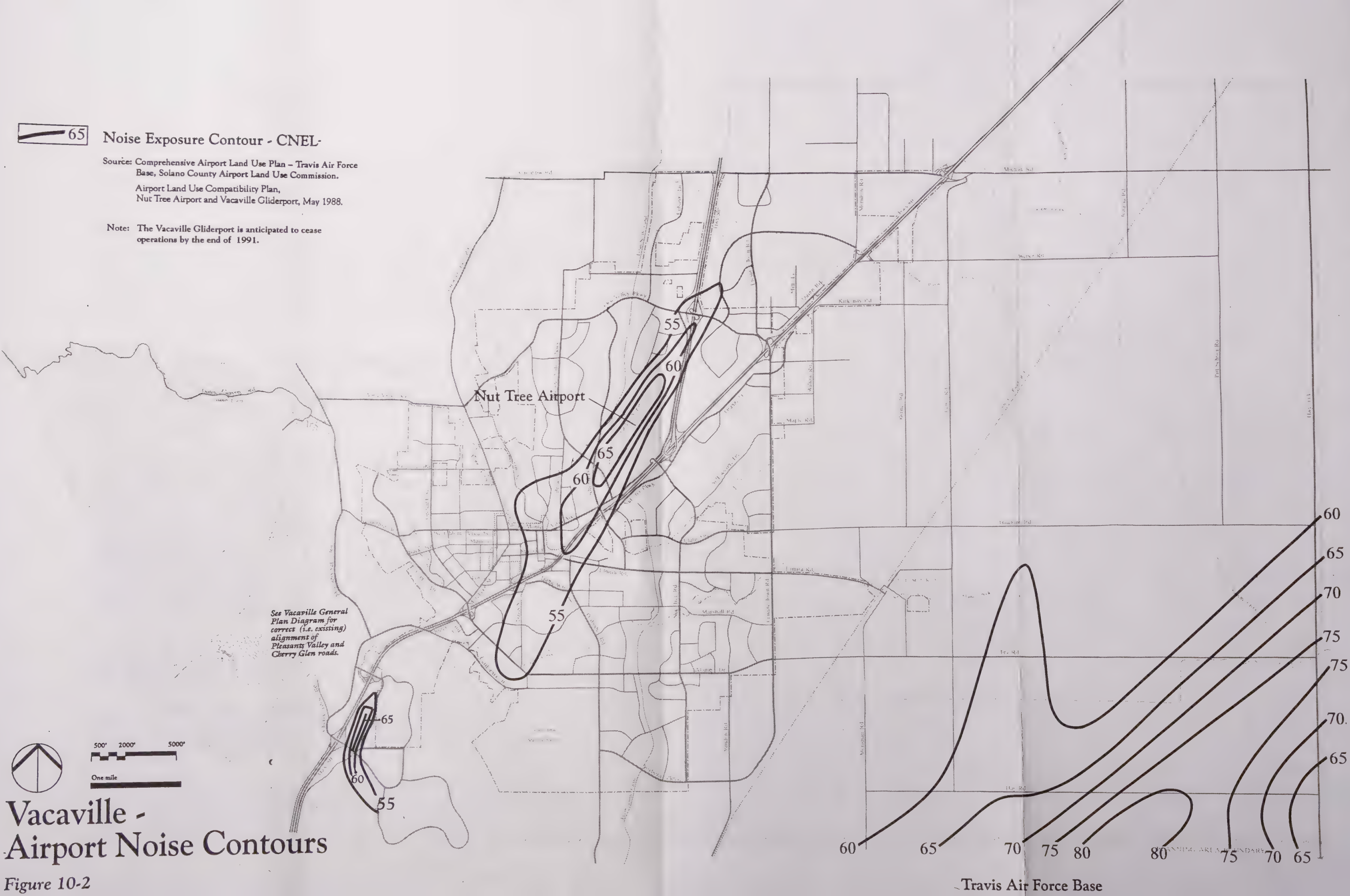
Understanding environmental noise requires a familiarity with the physical description of noise and the way humans react to different noises. The important physical characteristics of environmental noise include frequency, level, and temporal (time-varying) behavior. The effects of noise on people can be grouped in three general categories: subjective effects, interference with activities, and physiological effects.

Airborne sound is rapid fluctuation of air pressure above and below atmospheric pressure. It is received by the ear and perceived by the brain as sound. Noise is defined as unwanted or undesired sound. The sound of a train may be music to the engineer, but may be noise to a person living next to the tracks. Frequency (pitch), noise (loudness), a-weighted sound levels, and the time-varying character of noise are defined below, as a way of summarizing physical characteristics of environmental noise.

 65 Noise Exposure Contour - CNEL

Source: Comprehensive Airport Land Use Plan - Travis Air Force Base, Solano County Airport Land Use Commission.
Airport Land Use Compatibility Plan,
Nut Tree Airport and Vacaville Gliderport, May 1988.

Note: The Vacaville Gliderport is anticipated to cease operations by the end of 1991.



Vacaville - Airport Noise Contours

Figure 10-2

the population who are neither ultrasensitive nor insensitive to noise. Negative reaction to noise generally increases with the increase in difference between background, or ambient, noise and the noise generated from a particular source such as traffic or railroad operations. In most situations, noise control measures need to reduce noise by 5 to 10 dB in order to effectively reduce complaints.

People generally have the ability to distinguish one sound from a background of sounds, such as a telephone ringing over music. However, certain noise levels can render a sound inaudible. Face to face conversation usually can proceed up to 66 dB, group conversations up to 50 or 60 dB, and public meetings, up to 45 or 55 dB, without interruption.

Sleep interference is more difficult to quantify although studies have shown that progressively deeper levels of sleep require louder noise levels to cause disturbance. Learning and job performance begin to be impaired with noise levels of 90 dB and greater although high frequency or irregular bursts of noise may cause interruption at lower levels. The California Office of Noise Control (ONC) recommends that individual events within sleeping areas should not exceed 50 dB in residential areas exposed to noise DNL levels of 60 dB and greater. Interior DNL noise standards of 45 dB adopted within this element will protect against sleep interference except in quiet areas exposed to loud individual noise events.

Environmental noise, in almost every case, produces effects which are subjective in nature or involve interference with human activity. However, brief sounds at levels exceeding 70 dB can produce temporary physiological effects such as constriction of blood vessels, changes in breathing and dilation of the pupils. Steady noises of 90 dB have been shown to increase muscle tension and adversely affect simple decisionmaking. Long-term exposure to levels exceeding 70 dB can cause hearing loss. A large body of research in this field documents the varied physiological effects which can result from exposure to noise.

10.3 NOISE MONITORING AND STUDY

The assumptions for future noise exposure in Vacaville were based on projections of traffic volumes, speed, and vehicle mix which may change in the future. As traffic projections are updated, these noise projections should be adjusted using a format which can be used in subsequent site-specific noise studies. On roadways where traffic volumes have increased by more than 50 percent above the baseline data, noise measurements would be conducted by a qualified acoustical consultant to verify the noise projections. In this

manner, noise levels and contours could be kept up to date with changing traffic conditions and verified in areas where significant change is occurring.

Noise mitigation measures can be better anticipated with verified data, and site-specific studies still will be needed in most areas to recommend the most effective noise attenuation measures in a particular location. The City may develop a uniform format for such site-specific studies and maintain a list of acoustical consultants who are qualified to perform these technical studies. The studies would include a description of the methodology and assumptions used, an evaluation of the effectiveness of various noise attenuation measures, a recommendation of the most cost-effective measure, a program to test the effectiveness of the measure after it has been installed, and recommendations to revise study assumptions in the case of ineffective mitigations.

It should be noted that the policies in the General Plan are based upon DNL noise exposure levels, with the exception of airport related noise policies. The Airport Land Use Compatibility Plan for Nut Tree Airport and Vacaville Gliderport, and the Comprehensive Airport Land Use Plan for Travis Air Force Base are based upon CNEL noise exposure levels. Therefore, reference to airport related noise exposure levels are referred to in CNEL levels, not DNL.

10.4 NOISE MITIGATION

Noise may be controlled three ways: at its source, by barriers between the source and receptor, and by controlling the receptor. A sensitive receptor must be located far from the source or must be insulated to reduce noise to an acceptable level within the structure -- not a desirable solution in a climate that invites outdoor living.

Noise mitigation measures recommended by site-specific studies include sundials, earth berms, noise insulation, building orientation and setback requirements. Earth berms can be an effective noise mitigation if properly designed.

Most new buildings in Vacaville include construction materials adequate to reduce interior noise by 15 to 20 dB below exterior levels. Special acoustical construction techniques can be added to new buildings or retrofitted to old buildings, including roof and wall insulation, double pane windows and ventilation systems. Site plan review of new building projects in Vacaville includes consideration of topography, building orientation and setbacks to reduce noise levels. All of these noise reduction measures should be considered in locations shown on Table 10-1 as being within "conditionally acceptable"

areas and should be tailored to individual site characteristics based on an acoustical report. The objective in these areas is to provide DNL outdoor noise exposure levels at or below 60 dB where people can be expected to spend a lot of time.

10.5 NOISE AND LAND USE COMPATIBILITY GUIDELINES

The objective of the noise and land use compatibility guidelines is to provide an acceptable community noise environment and to minimize noise-related complaints from residents. The compatibility guidelines shown in Table 10-1 should be used in conjunction with the future noise exposure levels in Figure 10-1 to identify projects or activities which may require special treatment to minimize noise exposure. Homes should not be allowed near I-80, for example, unless mitigation measures can effectively reduce noise exposure to acceptable levels. These standards are adopted by the City.

A land use or project in the "normally acceptable" category, as shown on Table 10-1, will be acceptable within the noise levels indicated, in most cases, without special noise abatement measures. For example, a home of standard construction would be an acceptable use in any area of 60 DNL or less without special insulation, setback or building design. The same home in an area projected for noise levels of 60 to 70 DNL should only be allowed following an acoustical study which recommends site-specific noise attenuation measures such as double pane windows, setbacks and/or construction of sound walls.

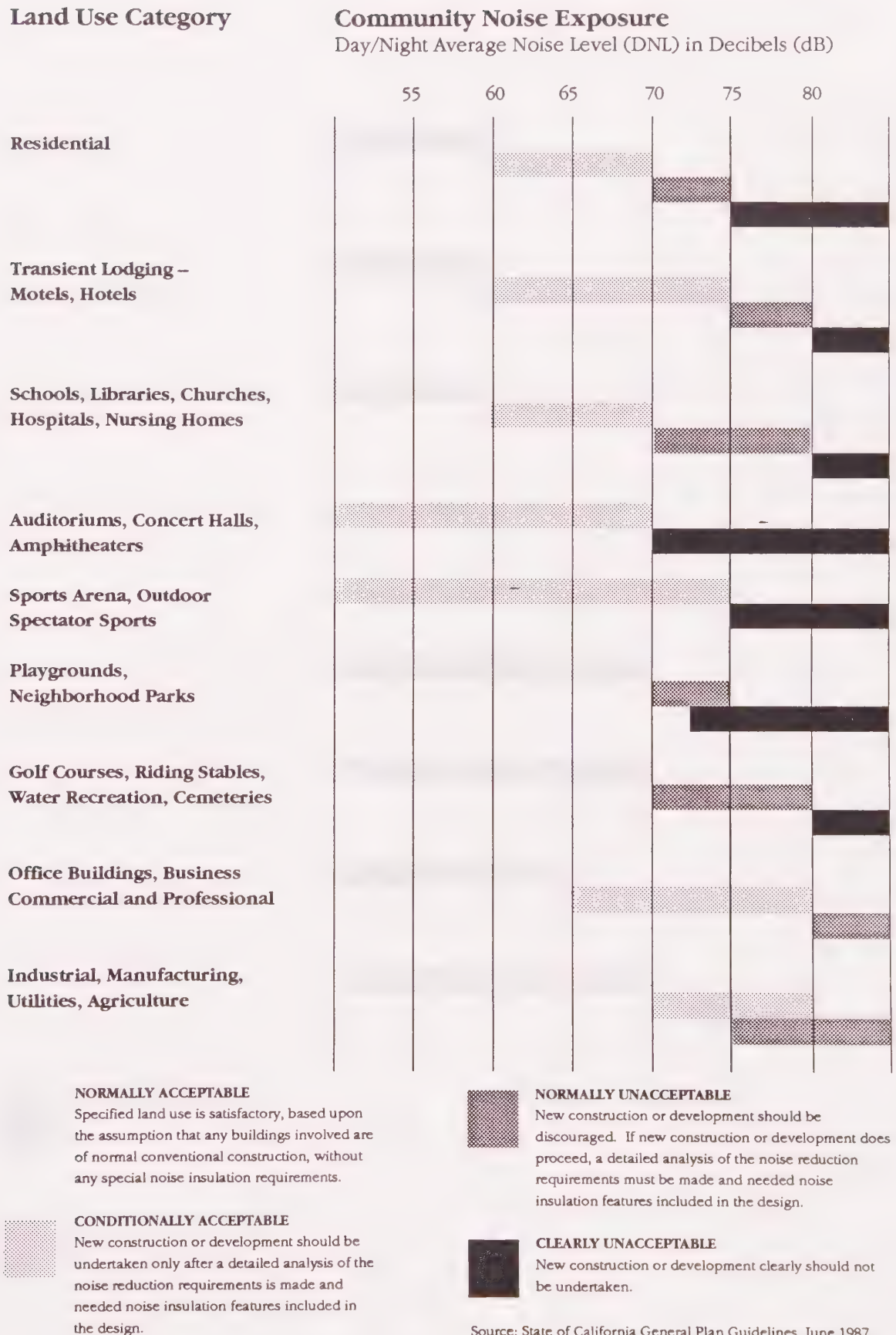
The following considerations should be taken into account when using the Noise and Land Use Compatibility Guidelines.

- o The goal for maximum outdoor noise levels in residential areas is a DNL of 60 dB. This level is a requirement to guide the design and location of future development and a goal for the reduction of noise in existing development. However, 60 DNL is a goal which cannot necessarily be reached in all residential areas within the realm of economic or aesthetic feasibility. This goal should be applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects).

Noise & Land Use Compatibility Guidelines

Table 10-1

See next page for airport/land use noise compatibility criteria



Source: State of California General Plan Guidelines, June 1987.
Charles M. Salter Associates, Inc.

Airport/Land Use Noise Compatibility Criteria

As adopted by Solano County Airport Land Use Commission
Table 10-1 (continued)

Land Use Category

CNEL or DNL, dBa

	50	55	60	65	70	75	80
Schools, Libraries, Hospitals, Nursing Homes							
Churches, Auditoriums, Concert Halls,							
Transportation, Parking, Cemeteries							
Offices, Retail Trade							
Service Commercial, Wholesale Trade, Warehousing, Light Industrial							
Extractive Industrial, General Manufacturing, Utilities							
Cropland							
Livestock Breeding							
Playgrounds, Parks, Zoos							
Golf Courses, Riding Stables, Water Recreation							
Outdoor Spectator Sports							
Amphitheaters							

CLEARLY ACCEPTABLE

The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.

NORMALLY ACCEPTABLE

Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.

MARGINALLY ACCEPTABLE

The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are

open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.

NORMALLY UNACCEPTABLE

Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.

CLEARLY UNACCEPTABLE

Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

Source: Solano County Airport Land Use Commission, *Airport Land Use Compatibility Plan*, May 1988

- o The indoor noise level as required by the State of California Noise Insulation Standards must not exceed a DNL of 45 dB in multi-family dwellings. This indoor criterion should also be the maximum acceptable indoor noise level in single-family homes.
- o If the noise source is a railroad, the outdoor noise exposure criterion should be 70 DNL for future development. It may not be feasible to reduce noise to 70 DNL in existing residential areas adjacent to railroads. This is because train noise is usually characterized by relatively few loud events which generally do not cause problems in an outdoor environment. Even though the outdoor DNL may be high, during the majority of the time the noise level will be acceptable for speech communication and people would not be highly annoyed.
- o Interior noise levels in both single-family and multifamily residential units exposed to railroad noise should be limited to a maximum instantaneous noise level in the bedrooms of 50 dB. Maximum instantaneous noise levels in other rooms should not exceed 55 dB. The requirement to reduce railroad noise indoors should be implemented if there are more than four train passings between 7:00 a.m. and 10:00 p.m. or any trains between 10:00 p.m. and 7:00 a.m. This minimal amount of train operation is sufficient to generate outdoor noise levels of at least 70 DNL.
- o If the noise source is aircraft, people will generally be annoyed at a lower average sound level than for other transportation sources. Studies have shown that aircraft noise at a given DNL is more annoying than traffic noise at the same DNL. Residential developments should be strongly discouraged where the exterior DNL exceeds 55 dB due to aircraft. If residential uses are allowed in areas where the DNL exceeds 55 dB, then interior noise levels should be controlled so that maximum noise levels do not exceed 50 dB in bedrooms or 55 dB in other rooms. Residential construction should not be allowed in areas where the DNL exceeds 65 dB from aircraft. (As noted above, for most environmental settings, DNL is approximately numerically equal to CNEL, the measure used in relevant published airport reports, and shown in Figure 10-2.)

- o Appropriate interior noise levels in commercial, industrial, and office buildings are a function of the use of space. For example, the noise level in private offices should generally be quieter than for data-processing rooms. Interior noise levels in offices generally should maintain an Leq of 45 dB or less. Acoustical designs to achieve this level should be demonstrated by the project sponsor in sufficient detail to satisfy City staff and OSHA requirements.
- o These guidelines are not intended to be applied reciprocally. In other words, if an area currently is below the desired noise standard, an increase in noise up to the maximum should not necessarily be allowed. The impact of a proposed project on an existing land use should be evaluated in terms of the potential for adverse community response, based on a significant increase in existing noise levels, regardless of the compatibility guidelines.

10.6 NOISE POLICIES

Guiding Policies

- 10.6-G1 Require new projects to meet acceptable exterior noise level standards; require site and building design to achieve noise compatibility, where feasible.
- 10.6-G2 Reduce outdoor noise levels in existing residential areas where economically and aesthetically feasible.
- 10.6-G3 Ensure that noise does not exceed interior noise levels of 45 Ldn for residential uses, school classrooms, libraries, churches, hospitals, convalescent homes, transient lodging, and those levels specified in noise studies for other uses.
- 10.6-G4 Minimize vehicular and stationary noise sources, and noise emanating from temporary activities; control noise at its source to maintain existing noise levels, and in no case to exceed acceptable noise levels as established in the Noise and Land Use Compatibility Guidelines, Table 10-1.
- 10.6-G5 Protect schools, hospitals, libraries, churches, convalescent homes, and other noise sensitive uses from noise levels exceeding those allowed in residential areas.

- 10.6-G6 Limit truck traffic in residential and commercial areas to designated truck routes.
- 10.6-G7 Design City streets to reduce noise levels in adjacent areas.
- 10.6-G8 Encourage other agencies to reduce noise levels generated by roadways, railways, airports, and other facilities.

Implementing Policies

- 10.6-I1 Enact a noise-control ordinance regulating stationary noise sources, such as construction and property maintenance activity and mechanical equipment, and enforce California vehicle noise levels.
- 10.6-I2 Use the "normally acceptable" noise levels for new land uses as established in the Noise and Land Use Compatibility Guidelines contained in Table 10-1 including the descriptions in the text.
- 10.6-I3 Require an acoustic study for all proposed projects that would have noise exposure greater than normally acceptable as indicated by Figure 10-1 and Table 10-1, and as described in the text.

State law requires mitigation to reduce Ldn to 45 dB in habitable rooms of multifamily housing, but the standard should apply to all housing.

- 10.6-I4 Use noise guidelines and contours to determine the need for noise studies and require new developments to pay their fair share for noise attenuation features and mitigation measures to reduce interior noise levels within adjacent or impacted land uses as a condition of approving new projects.
- 10.6-I5 Require noise studies for future projects to use a consistent format, to be prepared by a competent acoustical consultant, to analyze alternative mitigations and to monitor the effectiveness of the mitigations following their implementation.
- 10.6-I6 Request Caltrans to provide sound walls designed adjacent to residential areas along I-80.

- 10.6-I7 Require noise attenuation programs for new developments exposed to noise above normally acceptable levels which include measures to shield sensitive uses from noise sources. Encourage noise attenuation programs which avoid visible sound walls, where practical.
- Open space, parking, accessory buildings, and landscaping can be used to buffer development from noise.*
- 10.6-I8 Install soundwalls, noise insulation and other mitigations in areas exceeding City standards where feasible; use barriers to mitigate traffic noise where other methods are not feasible.
- 10.6-I9 Require construction of sound walls for new development where noise mitigation to acceptable levels by other means is not practical. Require that the effects of the construction of sound walls on noise levels at other areas be considered, and taken into account in the design and location of sound walls.
- 10.6-I10 Continue to require sound walls along arterial streets adjoining new residential development.
- 10.6-I11 Develop a program for construction of noise walls or other appropriate noise attenuation programs adjacent to existing residential areas where noise levels exceed acceptable levels.
- 10.6-I12 Continue to project and monitor noise levels using traffic projections and periodic noise monitoring in conjunction with new development approvals, including monitoring interior noise levels in problem areas shown in Figure 10-1.
- 10.6-I13 Verify projected noise in conjunction with new development approvals with noise monitors at locations adjacent to residential and other noise sensitive areas where traffic volumes increase by more than 50 percent from baseline noise data.
- 10.6-I14 Where site conditions permit, require noise buffers along local arterials and railroad alignments for all new adjoining developments which are subject to unacceptable noise levels.

The required buffer depth is based on a detailed noise analysis and or County or City judgment regarding the projected effectiveness of proposed noise-abating design measures.

- 10.6-I15 Restrict noise emissions from construction activities.
See Table 10-3.
- 10.6-I16 Enforce the California State Vehicle Noise Standards for Motor Vehicles.
See Table 10-2.
- 10.6-I17 Locate noise-sensitive uses away from noise sources unless mitigation measures are included in development plans.
- 10.6-I18 Limit construction, delivery and through truck traffic to designated routes; maintain smooth street surfaces adjacent to land uses which are sensitive to noise intrusion.
- 10.6-I19 Distribute maps of approved truck routes to City traffic officers.
- 10.6-I20 Continue to require soundwalls, earth berms, setbacks and other noise reduction techniques as conditions of development approval.

TABLE 10-2
CALIFORNIA STATE NOISE STANDARDS FOR MOTOR VEHICLES
(dBA at 50 Feet from the Center of the Travel Lane)

Vehicle Type	Less Than 35 mph	Greater Than 35 mph
Trucks	88	90
Motorcycles	82	86
Automobiles	76	82

Source: California Vehicle Code noise emission standards for operation of licensed motor vehicles in California (Section 23130).

TABLE 10-3
MAXIMUM ALLOWABLE NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Equipment Type	Peak Noise Level in dBA at 50 feet
Earthmoving	
Front Loader	75
Backhoes	75
Dozers	75
Tractors	75
Scrapers	80
Graders	75
Truck	75
Paver	80
Materials Handling	
Concrete Mixer	75
Concrete Pump	75
Crane	75
Derrick	75
Stationary	
Pumps	75
Generators	75
Compressors	75
Impact	
Pile Drivers	95
Jackhammers	75
Rock Drills	80
Pneumatic Tools	80
Other	
Saws	75
Vibrator	75

- 10.6-I21 Attempt to maintain local and collector streets at 6,000-9,000 ADT or less to ensure acceptable noise levels within adjacent residences.
- 10.6-I22 Work with the County ALUC, State ONC, and other agencies to reduce noise generated from sources outside the City's jurisdiction.
- 10.6-I23 Support implementation of state legislation that requires reduction of noise from motorcycles, automobiles, trucks, and aircraft.
- 10.6-I24 Update aircraft noise projections as future operations at the Nut Tree Airport and Travis Air Force Base are projected to change.

11 IMPLEMENTATION

The Vacaville General Plan provides specific policy guidance for implementation of plan concepts in each of the Plan elements. This framework establishes a basis for coordinated action by the City, adjacent jurisdictions, Solano County and regional agencies. The Implementation Section of the General Plan summarizes the actions to be undertaken by the City for ease of reference.

The major implementation process for the land use proposals will be administration of the Zoning Ordinance through the zoning map. Table 11-1 on the next page shows which zoning districts in the existing ordinance are consistent with land use classifications on the Plan Diagram. Three categories of land use/zoning consistency are indicated:

- o Consistent;
- o Consistent only if submitted as a Planned Unit Development (PUD) or in a Policy Plan; and
- o Consistent if proposed use is found by the City Council to be consistent with the policies and programs of the General Plan.

The land use categories are abbreviated for reference. They correspond with the classifications presented in Section 2.4 of the Land Use Element as follows:

RR Rural Residential	CH Highway Commercial
RE Residential Estate	CO Commercial Office
RG Golf Course Community	D Downtown
RLD Low-Density Residential	IP Industrial Park
RLMD Low-Medium Density Residential	BP Business Park
RMD Medium-Density Residential	P Public
RHD High-Density Residential	S School
RUHD Urban-High-Density Residential	PR Private Recreation
MHP Manufactured Home Park	PK Park
CG General Commercial	GB Greenbelt Buffer
CN Neighborhood Commercial	OS Open Space/Agriculture
CS Service Commercial	

This Table will be modified as the Zoning Ordinance is revised, consistent with the Plan’s implementation program.

Vacaville - Land Use/Zoning Consistency

Table 11-1

Zoning District	Land Use																						
	RR	RE	RG	RLD	RL MD	RMD	RHD	RU HD	MHP	CG	CN	CS	CH	CO	IP	BP	P	S	PR	RK	GB	OS	D
A-40																				●	◐	●	
A-20 ¹	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	◐	●	
RS																			●				
R-E-5	●																						
R-E-2.5	◐																						
R-E-1			◐																				
R-I-20,000		●	◐																				
R-I-15,000		◐	◐																				
R-I-12,000		◐	◐																				
R-I-10,000		◐	◐	●																			
R-I-8,000				◐																			
R-I-6,000				◐	●																		
R-I-Variable				◐	◐	◐			◐														
R-M-3,000				◐	◐	◐	◐		◐														
R-M-2,000						◐	◐																
R-M-Variable							◐	◐															
CC																							●
CG										●													
CO														●									◐
CN											●												
CS												●											
CH													●										
CR																							
PAO														●									◐
IP															●								
M-L															●								
M-H															○								

Legend:



Consistent



Consistent only if submitted as a planned unit development or Policy Plan



Consistent if proposed use is found by the City Council to be consistent with policies and programs of the General Plan

(Blank) Inconsistent

1. In areas designated for Policy Plans, the Policy Plan is a prerequisite for development and supersedes zoning ordinance provisions.

The Capital Improvement Program will be the primary means of scheduling and funding infrastructure improvements of citywide benefit. Improvements for specific developing areas will be defined in policy plans.

General Plan implementation also will depend on actions of other public agencies and of the private sector, which will fund most of the development expected to occur in the Planning Area. The General Plan will serve a coordinating function for private sector decisions.

SUMMARY OF IMPLEMENTATION ACTIONS

2 LAND USE ELEMENT

2.1 Community Form and Image

- | | |
|--------|--|
| 2.1-I1 | Prepare design guidelines for all development. |
| 2.1-I2 | Negotiate with affected jurisdictions and public and private agencies to ensure creation of agricultural zones and open space corridors that will serve as community separators. |
| 2.1-I3 | Adopt and implement a plan to establish standards and design guidelines for the City's streets, entry ways and open spaces. |
| 2.1-I4 | Establish a mechanism whereby new development may be assessed impact fees or be required to purchase conservation easements. |
| 2.1-I5 | Adopt resource protection regulations. |
| 2.1-I6 | Make open space more accessible to the public with a linked park and trail system. |
| 2.1-I7 | Maintain and replace, as necessary, lighting and landscaping on the City's streets. |

- 2.1-I8 Continue to develop a cultural resources program.
- 2.1-I9 Continue code enforcement.
- 2.1-I10 Promote and acknowledge outstanding community design.

2.2 Growth Strategy

- 2.2-I1 Conduct a study with SID of the area approximated by Leisure Town Road and the Lock-Paddon Area to determine land uses and land use issues for this area and their impacts upon SID, property owners and others.
- 2.2-I2 Prepare and implement a planned growth ordinance.
- 2.2-I3 Continue to monitor annually the City's housing mix.
- 2.2-I4 Negotiate agreements with the Solano Irrigation District and other local government entities to help direct the provision of urban services.
- 2.2-I5 Continue to implement an Economic Development Strategy.
- 2.2-I6 Do not permit development of such intensity or density that it will create substantial problems or unacceptable levels of service.
- 2.2-I7 Work with the County and the Local Agency Formation Commission to expand the Vacaville Sphere of Influence.
- 2.2-I8 Establish a phasing plan.
- 2.2-I9 Require that policy plans be prepared.
- 2.2-I10 Require new development to pay capital improvement fees.
- 2.2-I11 Establish a mechanism to monitor new development.
- 2.2-I12 Allow development in new outlying areas to occur only as part of a coordinated plan.

2.3 Special Area Policies

- 2.3-I1 Approve conventional housing in place of manufactured housing east of Leisure Town Road and north of Elmira Road after Planning Commission and City Council make specific findings.
- 2.3-I2 Require that the 38+ General Commercial site located in the south portion of the Orange Tree Business Park be the subject of a detailed traffic analysis and policy plan revision.
- 2.3-I3 The 19+ acre site located at the northwest corner of Allison Drive and Elmira Road shall be included in the Allison Policy Plan.
- 2.3-I4 Include specific standards in the Nut Tree Business Park Policy Plan.
- 2.3-I5 Reconsider the neighborhood commercial designations under certain conditions.
- 2.3-I6 Designate two small valleys as residential estates.
- 2.3-I7 Approve conventional housing in place of manufactured housing east of Leisure Town Road and north of Ackerley Road after Planning Commission and City Council make specific findings.
- 2.3-I8 Require Quim-Ellsworth policy plan to meet certain requirements.
- 2.3-I9 Require North Village policy plan to meet certain requirements.
- 2.3-I10 Approve conventional housing in place of manufactured housing in housing park designated west of Vanden after Planning Commission and City Council make specific findings.
- 2.3-I11 Require a policy plan for the South of Alamo area, which shall be separate from the Vanden policy.
- 2.3-I12 Require a minimum lot size of 10,000 square feet in certain areas of the Vanden Policy Plan.

- 2.3-I13 Require Laguna Hills policy plan to meet certain requirements.
- 2.3-I14 Require the Lower Lagoon Valley policy plan to meet certain requirements.
- 2.3-I15 The City Council may establish "Special Study Areas" where the resolution of circulation problems or land use issues will require detailed study.
- 2.3-I16 The City Council may establish a "Special Performance Option" for alternative land uses offering substantial public benefit.

2.5 Residential Areas

- 2.5-I1 Amend the Zoning Ordinance to establish residential densities consistent with the General Plan.
- 2.5-I2 Establish residential design guidelines.
- 2.5-I3 In any development exceeding 400 units, require a mix of development types and/or densities.
- 2.5-I4 Establish requirements for private and common open space.
- 2.5-I5 Encourage high density housing in the Downtown core area.
- 2.5-I6 Locate lower-density housing at the edge of the planned urban area.
- 2.5-I7 Establish regulations for Housing Opportunity Areas.
- 2.5-I8 Establish regulations requiring buffers between residential and agricultural areas.
- 2.5-I9 Limit residential development in areas impacted by noise and potential hazards from Nut Tree Airport.
- 2.5-I10 Require impact fees from developers for provision of community facilities and services.

- 2.5-I11 Review and revise the City's capital improvement program annually.
- 2.5-I12 Establish regulations to encourage neighborhood conservation.
- 2.5-I13 Require that all residential development meeting certain criteria be subject to discretionary review.
- 2.5-I14 Design residential neighborhoods to avoid fronting on major streets.
- 2.5-I15 Allow development in new outlying areas to occur only as part of a coordinated plan.

2.6 Retailing and Commercial Services

- 2.6-I1 Establish commercial design guidelines.
- 2.6-I2 Continue a program of public improvements to support Downtown.
- 2.6-I3 Designate the Basic American Foods plant site for general commercial development.
- 2.6-I4 Integrate Andrews Park and the Ulati Creek corridor into plans for Downtown.
- 2.6-I5 Limit neighborhood commercial site size.
- 2.6-I6 Exclude all offices not accessory to a commercial-service business from commercial-service areas.
- 2.6-I7 Review development standards and use regulations for all commercial districts.
- 2.6-I8 Revise the Zoning Ordinance and Policy Plans to establish limits on building intensity.
- 2.6-I9 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.
- 2.6-I10 Allow development in new outlying areas to occur only as part of a coordinated plan.

2.7 Offices

- 2.7-I1 Establish two categories for office use in the Zoning Ordinance.
- 2.7-I2 Establish office design guidelines.
- 2.7-I3 Prohibit offices as a primary use where the Plan designation is Commercial Services, Neighborhood Commercial, and Highway Commercial.
- 2.7-I4 Allow supporting retail and business services within commercial office zones.
- 2.7-I5 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.

2.8 Business and Industrial Park Development

- 2.8-I1 Establish regulations for business and industrial parks in the Zoning Ordinance.
- 2.8-I2 Designate land in appropriate locations for Industrial Park and Business Park development.
- 2.8-I3 Adopt setback, landscaping and screening requirements for industrial development.
- 2.8-I4 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.
- 2.8-I5 Allow development in new outlying areas to occur only as part of a coordinated plan.

3 OPEN SPACE ELEMENT

3.5 Open Space Policies

- 3.5-I1 Maintain certain designated agricultural production areas.
- 3.5-I2 Ridges and slopes at or exceeding 25 percent shall remain undeveloped.

- 3.5-I3 Require that designated open space be permanently restricted by recorded map or deed.
- 3.5-I4 Establish standards for the management and maintenance of open space.
- 3.5-I5 Where possible, minimize cut-and-fill activities and disturbance of natural habitats and vegetation.
- 3.5-I6 Reserve stream-channel setbacks.
- 3.5-I7 Amend the Zoning Ordinance to include an Open Space designation.
- 3.5-I8 Require a permanent Greenbelt or Agricultural Buffer as part of residential developments on the urban edge.
- 3.5-I9 Avoid pressures for conversion of designated agricultural land by entering into an agreement with the Solano Irrigation District.
- 3.5-I10 Formulate a program for community separators.

4 PARKS AND RECREATION ELEMENT

4.6 Park and Recreation Policies

- 4.6-I1 Establish a Public Parks Distribution Standard.
- 4.6-I2 Establish typical size and service area standards.
- 4.6-I3 Cooperate with other agencies to ensure that the needs for regional parks are met.
- 4.6-I4 Prepare and adopt a Parks, Recreation, and Open Space Master Plan.
- 4.6-I5 Include a child care element in Parks Master Plan.
- 4.6-I6 Develop a Trails and Trailhead system.

- 4.6-I7 Promote the environmental and recreational qualities of Lagoon Valley Regional Park.
- 4.6-I8 Preserve and enhance available riparian corridors, wildlife habitat, oak woodland, and other biotic resources within parks.
- 4.6-I9 Require developers of moderate and high density projects to incorporate private recreation areas into subdivisions.
- 4.6-I10 Require all residential developers, including apartment builders, to provide park and recreation facilities.
- 4.6-I11 Encourage the dedication of landscaped and developed parks, trail sections and special requirements.
- 4.6-I12 Cooperate with the school districts in developing standards for Neighborhood Schools Parks.
- 4.6-I13 Locate parks and recreation facilities in relation to components of the Trails Systems.
- 4.6-I14 Ensure that funding is available for new neighborhood parks.
- 4.6-I15 Use existing and new well sites, and other public lands, where feasible, for recreation or community gardens.
- 4.6-I16 Review proposals for private recreation facilities for consistency with Plan policies.

5 PUBLIC FACILITIES, INSTITUTIONS AND UTILITIES

5.1 Utilities and Public Services

- 5.1-I1 Continue to update the five-year Capital Improvement Plan.
- 5.1-I2 Update the Water Master Plan.
- 5.1-I3 Replace existing water mains with larger mains, as necessary.
- 5.1-I4 Prepare a Sewer Master Plan.

- 5.1-I5 Replace existing sewer trunk lines with larger sewer trunklines, as necessary.
- 5.1-I6 Develop a Public Safety facilities plan.
- 5.1-I7 Maintain an adequate level of disaster response preparedness.
- 5.1-I8 Ensure that new development provide funding for adequate facilities and services.
- 5.1-I9 Work with PG&E to develop transmission line corridors.
- 5.1-I10 Designate service corridor easements or routes when tentative maps or specific plans are approved.
- 5.1-I11 Require the undergrounding of all utility lines adjacent to new construction as a condition of development.
- 5.1-I12 Do not approve any development that will not maintain standards for water, sewer, police and fire service unless findings are made.
- 5.1-I13 Use non-treated water for irrigation in large landscaped areas.
- 5.1-I14 Do not extend sewer trunk lines to the industrial and commercial areas north of Weber Road and at the I-80/Midway Road interchange.
- 5.1-I15 Do not allow development in the Zone 1 water system to exceed an elevation of 220 feet.
- 5.1-I16 Enter into an agreement with SID to obtain an additional water supply.
- 5.1-I17 Establish an advisory committee to assist in waste programs.
- 5.1-I18 Adopt and implement a Source Reduction and Recycling Element.
- 5.1-I19 Implement a citywide recycling program.

- 5.1-I20 Implement a citywide household hazardous waste collection program.
- 5.1-I21 Consider composting or similar technique to divert yard waste.
- 5.1-I22 Emphasize educating City residents about waste programs.
- 5.1-I23 Consider adopting a procurement ordinance to purchase recycled goods.
- 5.1-G5 Practice waste disposal methods that divert a minimum 25% of the waste stream from the landfill by 1995.
- 5.1-G6 Improve upon and expand waste disposal programs to divert a minimum 50% of the waste stream by 2000.
- 5.1-G7 Strive for a minimum of 90% participation in waste diversion programs.

5.2 Community Services, Cultural Facilities and Historic Resources

- 5.2-I1 Continue to plan for a cultural center.
- 5.2-I2 Locate public facilities and private community facilities such as churches near residential areas.
- 5.2-I3 Encourage designation of sites for religious assembly on development plans.
- 5.2-I4 Encourage child-care facilities in residential areas.
- 5.2-I5 Develop zoning designation(s) that will clearly delineate major institutions and public facilities and their use.
- 5.2-I6 Continue to provide historic preservation by delineating historic preservation districts and requiring design review.

5.3 Schools

- 5.3-I1 Develop a City of Vacaville/School District Master Plan.
- 5.2-I2 Reserve school sites as shown on the General Plan Diagram.
- 5.3-I3 Ensure that sufficient classroom capacity will be available before approving residential development.
- 5.3-I4 Should proposed school sites not be required, the land use of the site shall automatically revert to the predominant land use in the area.
- 5.3-I5 Encourage neighboring school districts to propose changes in jurisdictional boundaries.
- 5.3-I6 Encourage school districts to promote innovative and high-quality design.

6 TRANSPORTATION ELEMENT

6.1 Standards for Traffic Service and Street Improvements

- 6.1-I1 Design roadway improvements and evaluate development proposals based on LOS standards.
- 6.1-I2 Implement Transportation Element improvements prior to deterioration in levels of service.
- 6.1-I4 Improve intersections as needed to maintain traffic levels of service.
- 6.1-I5 Adopt design standards for each functional roadway classification.
- 6.1-I6 Continue to review and update the Citywide Transportation Study.
- 6.1-I7 Require all new developments to provide right-of-way and improvements consistent with the Citywide Transportation Study.

- 6.1-I8 Policy Plans shall consider long-term growth in through-traffic in order to determine arterial street right-of-way requirements.

6.2 Freeways and Arterial Roadways

- 6.2-I1 Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, minimizing access, and requiring on-site parking.
- 6.2-I2 Formulate and implement a program to levy traffic impact fees.
- 6.2-I3 Encourage Caltrans to widen and upgrade I-80 through Vacaville.

6.3 Collector and Local Roadways

- 6.3-I1 Avoid adding traffic to roadways carrying volumes above the standard.
- 6.3-I2 Design local roadways as short, discontinuous roadways to discourage use by through-traffic.
- 6.3-I3 Control access to auto-oriented commercial areas by use of median strips and frontage road.

6.4 Transportation Systems Management

- 6.4-I1 Adopt a TSM ordinance.
- 6.4-I2 Require major employers to adopt TSM programs.
- 6.4-I3 Favor TSM programs that limit vehicle use over those that extend the commute hour.
- 6.4-I4 The transit routes and service should be designed to meet the federally required fare box matching revenues.
- 6.4-I5 Encourage the construction of regional rail facilities.
- 6.4-I6 Require facilities for future transit use.

- 6.4-I7 Design local transit to plan for local bus routes that improve service for potential riders.
- 6.4-I8 Work with Caltrans to identify and evaluate sites for rideshare parking.
- 6.4-I9 Support and encourage Caltrans to preserve options for future transit use.
- 6.4-I10 Continue to designate bike lanes and construct cross-city bike routes.
- 6.4-I11 Remove physical barriers to improve access to transit facilities for the elderly, handicapped and other transit-dependent groups.

6.5 Bikeways and Pedestrian Paths

- 6.5-I1 Use available rights-of-way and creek banks for public use.
- 6.5-I2 Incorporate bike storage and other support facilities into TSM plans.
- 6.5-I3 Provide adequate public bicycle parking and storage facilities as part of new multifamily and non-residential developments. Revise the parking regulations in the Zoning Ordinance.
- 6.5-I4 Develop a series of continuous pedestrian walkways within Downtown and residential neighborhoods.
- 6.5-I5 Develop a program to remove all barriers to disabled persons.
- 6.5-I6 New and existing on-street bicycle lanes should be striped and signed.

6.6 Airports

- 6.6-I1 Continue to implement the Nut Tree Airport Land Use Plan (ALUP) through the zoning regulations.
- 6.6-I2 Continue to require that aviation easements be granted.

- 6.6-I3 Implement the Travis Airport Land Use Plan by amending the City Zoning Ordinance.
- 6.6-I4 Development proposals within the Travis Airport Compatibility District shall be referred to the County Airport Land Use Commission.
- 6.6-I5 Avigation easements shall be required to be granted to Travis Air Force Base for all development within the Travis Airport Compatibility District.

7 HOUSING ELEMENT SUMMARY

7.1 Construction and Acquisition

- 7.1-I1 Continue to use Housing Opportunity Areas to grant density bonuses.
- 7.1-I2 Amend or adopt regulations to grant incentives for developments with affordable housing.
- 7.1-I3 Amend the Housing Mix Ordinance to automatically exempt Urban High Density units.
- 7.1-I4 Encourage innovative housing by adopting regulations allowing placement in residential areas by right or use permit.
- 7.1-I5 Support the efforts of non-profit agencies to provide affordable housing.
- 7.1-I6 Set specific standards for senior housing.
- 7.1-I7 Provide for emergency and transitional shelter.
- 7.1-I8 Continue to prepare an annual program to plan for the use of a redevelopment agency Low- and Moderate-Income Housing Funds.
- 7.1-I9 Continue to support mortgage-revenue-bond programs.
- 7.1-II0 Support the use of Low-Income Housing Tax Credits.

- 7.1-I11 Continue to apply for federal and state housing program funds as available.
- 7.1-I12 Continue to enforce Title 24 energy requirements and encourage development and construction standards that promote energy conservation.

7.2 Rehabilitation and Conservation

- 7.2-I1 Continue below-market-rate loan program.
- 7.2-I2 Continue to enforce Condominium Conversion Ordinance.
- 7.2-I3 Establish a Neighborhood Preservation Ordinance.
- 7.2-I4 Adopt measures to ensure long-term affordability of units produced by local programs.
- 7.2-I5 Assist in maintaining affordability of units produced by State and Federal programs.

7.3 Household Assistance

- 7.3-I1 Work to ensure no discrimination in housing.
- 7.3-I2 Continue to support VCWA emergency housing deposit program.
- 7.3-I3 Continue HUD certificate and voucher programs.
- 7.3-I4 Investigate use of mortgage credit certificates.
- 7.3-I5 Evaluate opportunities for housing assistance for Vacaville job-holders.
- 7.3-I6 Continue relocation assistance for households displaced by public action.

7.4 Program Evaluation

- 7.4-I1 Regularly compile and analyze relevant housing data.
- 7.4-I2 Evaluate housing programs in a regular and comprehensive fashion.

8 CONSERVATION ELEMENT

8.1 Creeks and Watershed Protection

- 8.1-I1 Implement City Creekways Policy.
- 8.1-I2 Continue to impose creek setback standards.
- 8.1-I3 Discourage culverting.
- 8.1-I4 Develop creek restoration standards.
- 8.1-I5 Protect existing stream channels.
- 8.1-I6 Consider establishment of creek maintenance districts.

8.2 Wildlife and Vegetation

- 8.2-I1 Require preservation or replacement of riparian vegetation.
- 8.2-I2 Minimize removal of woodland habitat.
- 8.2-I3 Provide wildlife corridors.

8.3 Air Quality

- 8.3-I1 Encourage project designs that conserve air quality.
- 8.3-I2 Encourage transportation modes that minimize vehicular use.
- 8.3-I3 Consider carbon monoxide levels at intersections when evaluating need for improvements.

8.4 Water Conservation

- 8.4-I1 Enact water conservation regulations.
- 8.4-I2 Require development to incorporate water-conserving landscape designs.
- 8.4-I3 Establish water conservation landscape standards.

8.4-I4 Enact regulations to protect and monitor wells.

8.4-I5 Use non-treated water for irrigation.

8.5 Historic and Archaeologic Resources

8.5-I1 Review proposed development to determine whether the site contains any cultural resources.

8.5-I2 Require that areas found to contain significant artifacts be examined by a qualified archaeologist or historian.

8.5-I3 Continue to encourage renovation of designated Downtown historic structures.

9 SAFETY ELEMENT

9.1 Geologic and Seismic Hazards

9.1-I1 Evaluate proposed extension of urban or suburban land uses into areas with 15-25 percent slopes and/or unstable land.

9.1-I2 Analyze proposed development at the earliest stage of detailed planning to determine geologic suitability.

9.1-I3 Require geotechnical studies prior to approval of rezoning, specific plans, or subdivision maps.

9.1-I4 Do not allow critical facilities in areas of high damage susceptibility.

9.1-I5 Ridges and slopes exceeding 25 percent shall remain undeveloped.

9.1-I6 Appoint a registered engineering geologist to be available at the discretion of the City Engineer to review reports.

9.1-I7 Do not locate structures intended for human occupancy over an active or potentially active fault.

9.1-I8 Establish setbacks from active and potentially active fault traces.

- 9.1-I9 Require preparation of a soils report prior to issuing a building permit.
- 9.1-I10 Limit cut slopes to 2:1.
- 9.1-I11 Require contour rounding and revegetation to preserve natural qualities of sloping terrain.
- 9.1-I12 Consider forming geological hazard abatement districts.
- 9.1-I13 Evaluate the feasibility of implementing a hazard reduction program for existing development in high risk areas.
- 9.1-I14 Adopt comprehensive standards for hillside development.

9.2 Flooding and Storm Damage

- 9.2-I1 Develop a financing plan and construct upstream detention flood reservoirs.
- 9.2-I2 Evaluate storm drainage needs for each project.
- 9.2-I3 Continue to cooperate on developing a stormwater management program.
- 9.2-I4 Assure through a Master Drainage Plan and ordinances that new development provides adequate mitigation.
- 9.2-I5 Encourage formation of flood control assessment districts.

9.3 Wildland and Urban Fires

- 9.3-I1 Establish Community Facilities Districts or other funding to provide standby fire protection services if necessary.
- 9.3-I2 Revise development standards in zoning to reduce the risk of structure fire in extreme or high fire danger areas.
- 9.3-I3 Coordinate fire protection with other agencies.
- 9.3-I4 Provide adequate access to and fire breaks adjoining open space areas.

9.4 Hazardous Materials

- 9.4-I1 Work with public agencies to inform consumers about hazardous materials.
- 9.4-I2 Cooperate on implementation of County Hazardous Waste Management Plan.

9.5 Disasters

- 9.5-I1 Adopt a comprehensive disaster management plan.

10 NOISE ELEMENT

10.6 Noise Policies

- 10.6-I1 Enact a noise control ordinance.
- 10.6-I2 Use "normally acceptable" noise levels for new land uses.
- 10.6-I3 Require an acoustic study for projects exposed to greater than normally acceptable noise.
- 10.6-I4 Use noise guidelines and contours to determine need for noise studies.
- 10.6-I5 Require noise studies to use a consistent format.
- 10.6-I6 Request Caltrans to provide sound walls along I-80.
- 10.6-I7 Require noise attenuation programs in new development.
- 10.6-I8 Install sound walls, noise insulation or other mitigation where standards are exceeded.
- 10.6-I9 Require construction of sound walls where other mitigation is not practical.

- 10.6-I10 Continue to require sound walls along arterial streets adjoining new residential development.
- 10.6-I11 Develop a program for noise walls adjacent to existing residential areas where noise exceeds acceptable levels.
- 10.6-I12 Continue to project and monitor noise levels.
- 10.6-I13 Verify projected noise levels with noise monitors.
- 10.6-I14 Require noise buffers along arterials and railroads.
- 10.6-I15 Restrict construction noise.
- 10.6-I16 Enforce State noise standards for motor vehicles.
- 10.6-I17 Locate noise-sensitive uses away from noise sources.
- 10.6-I18 Limit truck traffic to designated routes.
- 10.6-I19 Distribute maps of truck routes to traffic officers.
- 10.6-I20 Continue to require noise reduction as a condition of development approval.
- 10.6-I21 Attempt to maintain local and collector streets at 6,000-9,000 ADT to ensure acceptable noise levels.
- 10.6-I22 Work with other agencies to reduce noise outside the City.
- 10.6-I23 Support State legislation to reduce noise.
- 10.6-I24 Update aircraft noise projections.

12 GLOSSARY

This glossary is intended to serve the Plan and EIR, and contains terms used in both.

ABAG. Association of Bay Area Governments.

Acceptable Risk. Given that certain natural hazards exist in Vacaville, it is necessary to decide whether the risks these hazards present are acceptable or whether action is necessary to reduce the level of risk. The Council on Intergovernmental Relations (CIR) defines "Risk" from natural and man-made hazards in three categories:

1. Acceptable Risk: The level of risk below which no specific action by government is deemed to be necessary.
2. Unacceptable Risk: The level of risk above which specific action by government is deemed to be necessary to protect life and property.
3. Avoidable Risk: A risk which need not be taken because individual or public goals can be achieved at the same, or less, total "cost" by other means without taking the risk.

The central concept used in determining levels of acceptable risk is the definition of natural events in terms of magnitude and frequency. The magnitude of an event refers to its size. The frequency of an event refers to the number of times it occurs during a certain period of time.

The magnitude-frequency concept is involved in decisions regarding acceptable risk in that the community must judge what magnitude event should be planned for. That judgment is based on the frequency or recurrence interval of the hazardous event. A description of the magnitude and other characteristics of the event are developed through a technical analysis.

Acoustical Engineer. An engineer specializing in the measurement and physical properties of sound. In environmental review, the acoustical engineer measures noise impacts of proposed projects and designs measures to reduce those impacts.

Acre Foot. The volume of water that would cover one acre to a depth of one foot. An acre foot is about the amount of water used each year in and around the home by two average California families.

ADT. Average daily traffic.

ADWF. Average Dry Weather Flow.

Affordability, Housing. The relation of housing costs to household income.

Affordable Housing. Dwelling units for which the housing payment is not more than 30 percent of household gross income for a specified income group.

Agricultural Service Zone. A geographic area delineated in the General Plan where no urban development is to occur, and services are available only for agricultural and related uses.

Alluvial. Pertaining to or composed of alluvium, or deposited by a stream or running water.

Alluvium. A general term for clay, silt, sand, gravel, or similar unconsolidated detrital material deposited during comparatively recent geologic time by a stream or other body of running water as a sorted or semi-sorted sediment in the bed of the stream or on its flood plain or delta, or as a cone or fan at the base of a mountain slope.

ALUC. Airport Land Use Commission.

Apartment-type Units. Garden-type apartments or condominiums, generally at densities of 14 units per acre or more, designed as stacked units without garages.

APCD. Air Pollution Control District.

AQMP. Sacramento Air Quality Maintenance Plan.

Army Corps of Engineers. A federal agency responsible for the design and implementation of publicly-supported engineering projects; any construction activity that involves filling a watercourse, pond, lake (natural or man-made), or wetlands (including seasonal wetlands and vernal pools), may require an Army Corps permit.

Artificial Groundwater Recharge. The process whereby water in an aquifer (a waterbearing stratum of permeable rock, sand, or gravel) is artificially replenished.

Bedrock. The solid rock underlying unconsolidated surface materials.

Bike Lane. A corridor expressly reserved by markings for bicycles, existing on a street or roadway in addition to any lanes for use by motorized vehicles (Class 2 Bikeway).

Bike Path. A paved route not on a street or roadway, expressly reserved for bicycles. Bike paths may parallel roads but typically are separated from them by landscaping (Class 1 Bikeway).

Bike Route. A facility shared with motorists and identified only by signs. A bike route has no pavement markings or lane stripes (Class 3 Bikeway).

BMR. Below Market Rate. BMR housing is subsidized to make it available to households that cannot afford current market price.

Borings. The process of making a hole in the earth and extracting material for analysis of its composition. By generalizing a finding over a wider area, it is possible to determine the relative stability of a site.

Buildout. That level of urban development characterized by full occupancy of all developable sites in accordance with zoning regulations; the maximum level of development envisioned by the Town's General Plan and implementing programs.

CAI. California Archaeological Inventory.

Caltrans. California Department of Transportation.

Capital Improvement Program (CIP). The multiyear scheduling of public physical improvements based on studies of fiscal resources available and the choice of specific improvements to be constructed.

Carbon Monoxide. An odorless, colorless gas formed by the incomplete combustion of fuels; roughly 80 percent of Bay Area CO emissions are estimated to be from motor vehicles.

CDBG. Federal Community Development Block Grant.

CDMG. California Department of Mines and Geology.

CEQA. California Environmental Quality Act, 1979.

City. The City of Vacaville.

Colluvium. (a) A general term applied to any loose, heterogeneous, and incoherent mass of soil, material or rock fragments deposited chiefly by mass-wasting, usually at the base of a steep slope or cliff. (b) Alluvium deposited by unconcentrated surface runoff or sheet erosion, usually at the base of a slope.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7:00 to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods, respectively, to allow for the greater sensitivity to noise during those hours. An alternative measure is day-night average sound level (DNL). The A-weighted average sound level for a given area (measured in decibels) during a 24-hour period with a 10dB weighting applied to nighttime sound levels. The DNL is approximately numerically equal to the CNEL for most environmental settings.

Community Separator. Land designated as open space in order to avoid corridor-style urbanization and retain the character of free-standing cities.

Conservation. The management of natural resources to prevent waste, destruction, or neglect.

Culvert. A drain, ditch or conduit not incorporated in a closed system that carries drainage water under a driveway, roadway, railroad, pedestrian walk or publicway. Culverts are often built to channelize streams and as part of flood control systems.

DE Plant. Diatomaceous Earth Water Treatment Plant.

Decibel (dB). A unit used to express the relative intensity of a sound as it is heard by the human ear. The decibel measuring scale is logarithmic. Zero (0 dB) on the scale is the lowest sound level that a normal ear can detect under very quiet ("laboratory") conditions and is referred to as the "threshold" of human hearing. On the logarithmic scale, 10 decibels are 10 times more intense, 20 decibels are 100 times more intense, and 30 decibels are 1,000 times more intense than 1 decibel. See also Decibel "A-Weighted."

Decibel "A-Weighted" (dBA). The scale for measuring sound in decibels that weights or reduces the effects of low and high frequencies in order to simulate human hearing. See also Decibel.

DEIR. Draft Environmental Impact Report.

Density, Base. The allowable density range for a General Plan land use classification, excluding any density bonus.

Density Bonus. An increase in allowable density above base density granted in exchange for provision of affordable or senior housing.

Density, Net. The number of dwelling units per acre of developable residential land designated on the *General Plan Diagram*, exclusive of public and private streets, drainage, power-transmission-line easements, or other public and semipublic uses.

Design Review. The process whereby projects are reviewed for compliance with established design guidelines.

Development Fees. Direct charges or dedications collected on a one-time basis for a service provided or as a condition of approval being granted by the local government. The purpose of the fee or exaction must directly relate to the need created by the development. In addition, its amount must be proportional to the cost of the service or improvement. Fees can be broken down into two major classes: 1) service charges such as permit fees covering the cost of processing development plans, connection or standby fees for installing utilities or application fees for reviewing and considering development proposals; and 2) "impact" fees levied on new development to cover the cost of infrastructure or facilities necessitated by development.

DNL. Day-night average noise level. See also CNEL.

DFG. State of California, Department of Fish and Game.

DUSD. Dixon Unified School District.

Dwelling Unit (du). A building or portion of a building containing one or more rooms, designed for or used by one family for living or sleeping purposes, and having a separate bathroom and only one kitchen or kitchenette.

Ecotone. A transition area between two adjacent ecological communities usually exhibiting competition between organisms common to both; often a rich biological area.

EIR. Environmental Impact Report.

EMS. Emergency Medical Services.

Endangered Species, California. A native species or sub-species of a bird, mammal, fish, amphibian, reptile, or plant, which is in serious danger of becoming extinct throughout all or a significant portion of its range, due to one or more factors, including loss in habitat, change in habitat, over-exploitation, predation, competition, or disease. The status is determined by the State Department of Fish and Game together with the State Fish and Game Commission.

Endangered Species, Federal. A species which is in danger of extinction throughout all or a significant portion of its range, other than the species of the Class Insecta determined to constitute a pest whose protection under the provisions of the 1973 Endangered Species Act, as amended, would present an overwhelming and overriding risk to humans. The status is determined by the U.S. Fish and Wildlife Service and the Department of the Interior.

Environmental Impact Report (EIR). A report on the effect of a proposed development proposal or other major action which would significantly affect the environment. The report consists of an inventory of existing environmental conditions, projected impacts of development, and mitigation for significant adverse impacts. A general plan EIR is necessarily more general than a site-specific EIR.

Epicenter. That point on the Earth's surface which is directly above the focus of an earthquake.

Erosion. The process by which soil and rock are detached and moved by running water, wind, ice, and gravity.

Excess Firm Capacity. The difference between peak day demand and firm capacity; the amount of uncommitted water that could serve additional development.

FAR. Floor Area Ratio. The ratio between gross floor area of structures on a site and gross site area.

Fault. A surface or zone of rock fracture along which there has been displacement, from a few centimeters to a few kilometers in scale.

Federal Candidate Species, Category 1 (Candidate 1). Species for which the U.S. Fish and Wildlife Service has sufficient biological information to support a proposal to list as Endangered or Threatened.

Federal Candidate Species, Category 2 (Candidate 2). Species for which existing information indicates that these species may warrant listing, but for which substantial biological information to support a proposed rule is lacking.

Federal Flood Insurance. Affordable flood insurance offered by the federal government to property owners whose communities participate in the National Flood Insurance Program.

FEIR. Final Environmental Impact Report.

FEMA. Federal Emergency Management Agency.

Firm Capacity. The amount of water available assuming the water treatment plant is operating at 95 percent capacity and the largest well is not in operation.

Floor Area, Gross. The total horizontal area in square feet of all floors within the exterior walls of a building, but not including the area of unroofed inner courts or shaft enclosures.

Franciscan Melange. A thick zone of small to very large hard rocks embedded in more or less intensely sheared and crushed rock material, formed by an ancient fault which is no longer active.

FSUSD. Fairfield-Suisun Unified School District.

General Plan. A comprehensive, long-term plan mandated by State Planning Law for the physical development of the city and any land outside its boundaries which, in its judgment, bears relation to its planning. The plan shall consist of seven required elements; land use, circulation, open space, conservation, housing, safety, and noise. The plan must include a statement of development policies and a diagram or diagrams illustrating the policies.

Greenhouse Effect. The gradual warming of the earth's atmosphere attributed to the accumulation of gases caused by industrial and agricultural activities. Associated phenomena include the melting of the polar ice caps and rising sea levels.

Groundwater Recharge. The process whereby water in an aquifer, a water-bearing stratum of permeable rock, sand, or gravel, is replenished; this procedure occurs naturally, unless interrupted by human activity.

Habitat. The natural environment of a plant or animal.

Hazardous Waste. Waste which requires special handling to avoid illness or injury to persons or damage to property. Includes, but is not limited to, inorganic mineral acids of sulfur, fluorine, chlorine, nitrogen, chromium, phosphorous, selenium and arsenic and their common salts; lead, nickel, and mercury and their inorganic salts or metallo-organic derivatives; coal, tar acids such as phenol and cresols and their salts, and all radioactive materials.

High Density Residential. 14.1 to 20 units per gross acre.

High Occupancy Vehicle Lanes (HOV). Traffic lanes that are permanently or periodically restricted by law to vehicles with two, three, or more occupants.

Household. Person or persons living in one dwelling unit.

Housing Payment. For ownership housing, this is defined as the mortgage payment, property taxes, and insurance and utilities. For rental housing this is defined as rent and utilities.

Housing Unit, Multifamily. A dwelling other than a single-family housing unit.

Housing Unit, Single-Family. Detached or attached units, provided no unit shares a wall with more than two other units and there are no housing units above or below. A single-family housing unit shall have private outdoor living space.

Impervious Surface. Any material which reduces or prevents absorption of water into land.

Income, Above-Moderate. A household whose income exceeds 120 percent of the county median.

Income, Low. A household whose income is between 50 and 80 percent of the county median.

Income, Median. The county-wide median income for a four-person household, as defined by the United States Department of Housing and Urban Development and the California Department of Housing and Community Development.

Income, Moderate. A household whose income is between 81 and 120 percent of the median family income for the county.

Income, Very-Low. A household whose income does not exceed 50 percent of the median family income for the county.

Infill. The development of new housing or other buildings on scattered vacant lots in a built-up area or on new building parcels created by permitted lot splits.

Inversion. Temperature inversions limit the amount of vertical mixing of air and thus trap pollutants in the lower atmosphere where people breathe. Inversions are characterized by a layer of warmer air above a layer of cooler air, a reversal of the normal decline in temperature with increasing altitude.

Jobs/Housing Balance. A ratio used to describe the adequacy of the housing supply within a defined area to meet the needs of persons working within the same area. Jobs/housing balance as used in the General Plan is the ratio of jobs to employed residents within the Vacaville Planned Urban Service Zone.

Landslide. The downslope movement of soil and rock.

Level of Service (LOS). Calculated on the basis of a volume-to-capacity ratio, the level of service classification system is a scale which ranks street, highway, and intersection operations based on the amount of traffic and traffic operations. A complete description of the system is included in the Highway Capacity Manual (Special Report 209) Highway Research Board, 1985. Briefly, the level of service ranking system is a scale with a range of A through F. Level A represents free-flow conditions and Level F represents jammed or capacity conditions.

Liquefaction. A sudden large decrease in the shearing resistance of a cohesionless soil, caused by a collapse of the structure by shock or strain, and associated with a sudden but temporary increase of the pore fluid pressure.

Local Agency Formation Commission (LAFCO). A commission that acts on all proposals for incorporation of cities, annexation to cities or special districts, consolidation of districts, formation of special districts, and merger of districts with cities. (See also Sphere of Influence.) By law, the *Local Agency Formation Commission* is composed of two members of the county Board of Supervisors, two members of city councils of cities in the county, and one member who represents the general public.

Low-Density Residential. 3.1 to 5 units per gross acre.

Low-Medium Density Residential. 5.1 to 8 units per gross acre.

Medium-Density Residential. 8.1 to 14 units per gross acre.

Midden. Refuse heap. In the San Francisco Bay Area midden is composed primarily of shells and shell fragments piled in great mounds by early Native American inhabitants.

Mitigation. A specific action taken to reduce environmental impacts to insignificant levels. Mitigation measures are required as a component of an environmental impact report (EIR).

Multifamily Housing. See Housing Unit, Multifamily.

NBA. North Bay Aqueduct.

NBR Plant. North Bay Regional Water Treatment Plant, a joint facility, constructed by Vacaville and Fairfield.

Nitrogen Dioxide (NO₂). A reddish brown gas that is a byproduct of the combustion process and is a key to the ozone production process.

Noise Contour(s). Isolines (a line on a map or chart along which there is a constant value) representing noise, measured in decibels, from selected representative points within the City.

Non-point Source. A pollutant source introduced from dispersed points and lacking a single, identifiable origin. An example is automobile emissions.

100-year Flood. That flood event which has a one percent chance of occurrence in any one year.

Open Space. Any parcel or area of land or water which is essentially unimproved and devoted to an open-space use as defined in the General Plan or designated on a local, regional, or state open-space plan as one of the four types of open space defined in State Planning Law.

Operating Capacity (Schools). Number of students that can be accommodated both in classrooms in permanent buildings and classrooms in portable or temporary facilities.

Oxidant. The production of photochemical reactions in the atmosphere between reactive organic gases and oxides of nitrogen.

Ozone. An oxidant, O₃, that makes up the largest single portion of smog.

Parcel. A lot or tract of land.

Particulate Matter. Minute, separate airborne solid or liquid particles including smoke, dust, aerosols, metallic oxides, and pollen.

Peak Day (Water Use). The day of highest demand during the year.

Peak Hour Traffic. The number of vehicles passing over a designated section of a street during the busiest one hour period during a 24-hour period.

Permanent Capacity (Schools). Number of students that can be accommodated in classrooms within permanent buildings, excluding classroom space in portable or temporary facilities.

Planning Area. The Vacaville Planning Area is the 100 square-mile area indicated on the General Plan Diagram. The Planning Area includes an agricultural service zone and an urban service zone.

Point Source. A source of pollutants which may be traced to a point of emissions.

Policy Plan. A detailed plan that includes the text and maps or diagrams generally specifying the following for a portion of the area covered by the General Plan:

1. Land use;
2. Distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities;
3. Standards and criteria by which development will proceed; and
4. A program of implementation measures including regulations, programs, public-works projects, and financing measures.

Population Holding Capacity. The population that would result if all vacant land designated for residential use within the Urban Service Zone were built at the average density for the designated General Plan density category and the average household size in the city were 2.6.

Pump Station. A building or structure containing the necessary equipment to pump water to a higher level.

PWWF. Peak Wet Weather Flow.

Residential Estate. 0.5 to 3 units per gross acres.

Response Time. The amount of time for an emergency services response, measured from the time of the distress call until arrival on the scene.

Retention Area. A pond, pool, lagoon, or basin used for the storage of water runoff.

Right-of-Way. 1.) The total street width needed to accommodate, travel lanes, sidewalks and curbs, and gutters. 2.) A strip of land acquired by reservation, dedication, forced dedication, prescription or condemnation, and intended to be occupied or usually occupied by a road, crosswalk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary storm sewer or other similar use.

Riparian Habitat. Land and plants bordering a water course.

Rural Residential. One unit per 2.5 to 10 acres (0.1 - 0.4 units per gross acre).

SACOG. Sacramento Area Council of Governments.

Sensitive Receptors. Members of the population who are most sensitive to air quality include children, the elderly, the acutely ill, and the chronically ill. The term "sensitive receptors" can also refer to the land use categories where these people live or spend a significant amount of time. Such areas include residences, schools, playgrounds, child care centers, hospitals, retirement homes, and convalescent homes.

SID. Solano Irrigation District.

Siltation. The process of silt deposition. Silt is a loose sedimentary material composed of finely divided particles of soil or rock, often carried in cloudy suspension in water.

Site. A place, scene, or point.

Slope Failure. The process, often sudden, in which a steep slope collapses, usually carrying along structures and vegetation.

Slope, 25%. A slope defined by twenty-five units of vertical elevation per one hundred units of horizontal distance, measured on a line perpendicular to contours of equal elevation.

Solid Waste. Unwanted or discarded material, including garbage, with insufficient liquid content to be free flowing.

Sphere of Influence (SOI). A boundary representing the probable ultimate physical extent and service area of a city or special district. The SOI boundary is established by the county Local Agency Formation Commission (LAFCO) in accordance with the 1972 Knox-Nisbet Act.

Street, Arterial. A major street carrying the traffic of local and collector streets to and from other major streets and expressways or freeways, with controlled intersections and direct access to some, but not all properties.

Street, Collector. A street for traffic moving between arterial and local streets, generally providing direct access to properties.

Street, Local. A street that provides the principal means of direct access to properties and is designed to discourage through traffic.

Study Area. A study area is designated where a land use category has not been assumed because information, plan proposals, or agreement are insufficient.

Subdivision. The division of a lot, tract, or parcel of land into two or more lots, tracts, parcels, or other divisions of land for sale, development, or lease.

Subdivision Ordinance. An ordinance which specifies the division of a lot, tract, or parcel of land into two or more lots, tracts, parcels or other divisions of land for sale, development, or lease.

Subsidence. The gradual sinking of land as a result of natural or man-made causes.

The "Project". In the EIR, the "Project" is "build-out in accord with Vacaville Draft General Plan."

The "No Project" Alternative. In the EIR, the "No Project" alternative evaluates existing conditions in the City.

Threatened Species, California. A native species or sub-species of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts required by Chapter 1.5 of the State Department of Fish and Game Code.

Threatened Species, Federal. A species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Topography. The configuration of a surface, including its relief and the position of its natural and man-made features.

Trailhead. The beginning of a trail, usually marked by information signs.

Transportation System Management (TSM). TSM includes programs to reduce single occupancy vehicle travel. Programs include: carpools, vanpools, park and ride lots, transit, bicycle facilities, parking restrictions, flex-time, work hours, and pedestrian facilities. To encourage bicycle and pedestrian use, shower facilities at work can be provided. TSM programs are most effective in large office and industrial areas or large employment centers.

Trip. A one-way journey that proceeds from one origin to one destination.

Trip, Person. A trip made by an individual.

Trip-Generation Rate. The number of vehicle trips per acre, per 1,000 square feet of floor area, per housing unit or other unit of measure during a 24-hour period. Measured trip-generation rates are used to project the impact of development on the traffic circulation system.

TSM. Transportation Systems Management measures to reduce the number of single-occupant vehicle trips during peak hours.

TUSD. Travis Unified School District.

Urban Service Zone: The City of Vacaville and adjacent land planned for urban use.

URBEMIS2. A computer program which projects carbon monoxide, nitrogen oxides, and organic gases production, based on projected land use and traffic levels.

V/C. The ratio of traffic volume to roadway capacity.

Vehicle Trip. A trip made by a vehicle (may equal one or more person-trips).

Vernal Pool. Restricted to small geographic areas, vernal pools occur where seasonal rains are retained long enough in depressions to allow specialized aquatic plants and animals to grow and reproduce, but not long enough to permit the development of a typical pond or marsh ecosystem.

Volume-to-Capacity (V/C) Ratio. This is a comparison of the actual or projected traffic volume on a roadway or at an intersection to the total capacity of the roadway or intersection.

VUSD. Vacaville Unified School District.

Waste Stream. All solid, semisolid and liquid wastes including garbage, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.

Watershed. The total area above a given point on a watercourse that contributes water to the flow of the watercourse; the entire region drained by a watercourse.

Waterway. A natural waterway can support its own environment of vegetation, fowl, fish, and reptiles, and appears natural.

Wetlands. Includes the environments of subtidal mudflats, mudflats, tidal salt marsh, periodically inundated or brackish marsh, diked marshland, associated upland, and freshwater marsh.

Xeric. Vegetation requiring only a small amount of moisture.

YSAPCD. Yolo-Solano Air Pollution Control District.

Zoning District. A specifically delineated area or district within which regulations and requirements uniformly govern the use, placement, spacing, and size of buildings, open spaces, and other facilities.

Zoning Ordinance. The local ordinance which divides a municipality into districts and establishes regulations governing the use, placement, spacing, and size of buildings, open spaces, and other facilities.

GENERAL PLAN AMENDMENTS

(ADOPTED AFTER AUGUST 21, 1990)

Date	Resolution	Project	Subject(s)
10/16/91	1990-G-8	n/a	West Valleys North referendum Land Use Diagram Chapters 2, 3, 4, 5, 6,
3/26/91	1991-T-2	GP-1-91	Corrections, private applications Land Use Diagram Chapters 1, 2, 4, 6
3/26/91	1991-U-2	GP-2-91	Lower Lagoon Valley Land Use Diagram Chapter 2

ERRATA SHEET 6/91

VACAVILLE GENERAL PLAN

The figures listed below were amended as a part of General Plan amendment (GP-1-91), adopted by the City Council on March 26, 1991. The amended figures have not been reprinted at this time. The amended originals of each figure are available for review in the offices of the Advanced Planning Division at 600 Merchant Street.

Figure 1-1, Planning Sectors. The site of "Spring Lane II" was transferred from the West Valleys North sector to the Central sector.

Figure 2-2, Policy Plan Areas. The "South of Alamo" Policy Plan Area was given the notation "(See Policy 2.3-I11)".

Figure 4-2, Trails System. The trail segment along Alamo Creek from Buck Avenue to I-80 was deleted.

Figure 6-3, Bikeways. The bicycle path across the Putah South Canal, halfway between Foxboro Parkway and Youngsdale Drive, was deleted.

1 INTRODUCTION

1.1 DEVELOPMENT HISTORY AND FUTURE PROSPECTS

In 1841 the Mexican Government granted ten square leagues in what is now northern Solano County to Juan Felipe Peña and Manuel Cabeza Vaca. A decade later William McDaniel bought the townsite of Vacaville for three thousand dollars and filed a plat. Vacaville was incorporated in 1892 as a general law city. The economy was based almost entirely on fruit raising until World War II. The climate gave Vacaville's early-ripening fruit an advantage in the market, but lack of irrigation water limited production.

Since 1960, the City has grown from a population of 10,890 to an estimated April 1, 1990 household population of 62,950 excluding the California Medical Facility. This represents a rate of population increase averaging about 4.5 percent per year. This growth initially was caused by expansion of Basic Vegetable Products Company and construction of Travis Air Force Base and the California Medical Facility. More recently, Bay Area job growth, coupled with industrial development in the I-80 corridor, has spurred residential and commercial development.

The pace of home building has increased from an average rate of 750 units per year, which was the basis for the 1980 General Plan, to over 2,000 units permitted in 1989. The City has made the transition from a small agricultural community to a suburban city in a major transportation corridor without losing many of the small town qualities that make it an attractive place to live. The hillsides and ridges surrounding the city have been largely preserved, and farming has continued outside the planned urban area.

Looking ahead, Vacaville is entering a new era of "city building," the period when the City will set the physical cornerstones upon which the structure for a mature, economically sound and balanced community will be built. Over the next 20 years, regional population projections prepared by the Association of Bay Area Governments (ABAG) indicate that rapid growth will continue in Solano County. The 1980 General Plan was geared to a population holding capacity of 90,000. By contrast, the 1990 General Plan anticipates a twenty-year population holding capacity of approximately 104,000 (excluding the California Medical Facility). The City's economic base also is expected to grow and diversify, with job gains expected in the office and technology sectors as well as in government, manufacturing and distribution, health care, retailing and services.

The 104,000 population holding capacity is based upon an average of 2.6 persons per household and assumes that residential densities will occur at the midpoint of each residential land use category. Table 1-1 shows projected populations based on densities at the low and high ends of the land use categories. The density of any specific site may be greater or less than the midpoint.

TABLE 1-1
COMPARISON OF GENERAL PLAN
POPULATION HOLDING CAPACITY

Land Use Density Assumption	Household Population at Plan Buildout^a
Mid-point of Range	104,500±
High-end of Range	112,000±
Low-end of Range	97,500±

Note: ^aExcludes California Medical Facility (CMF) and CMF South.

1.2 NATURE AND FUNCTION OF THE GENERAL PLAN

This General Plan is a comprehensive update of the 1980 General Plan. It embodies policies for land use, circulation, community facilities, and environmental resource management. The balance between industrial, commercial and residential use, community identity, traffic, parks, and open space are the leading development issues. General Plan policies are designed to address each of these issues by establishing *Guiding Policies* that state the City's philosophy and *Implementing Policies* that represent its commitment to action. The Plan seeks to resolve apparent conflicts between stated community priorities, such as the desires to both provide sites for industry and housing and retain open space, or to provide for additional commercial development without creating unacceptable traffic impacts.

Section 2.2

- 2.2-I7 Work with the County and the Local Agency Formation Commission to expand the Vacaville Sphere of Influence in order to include all of the area in which development would affect the City's image and ability to provide services.
- 2.2-I8 Establish a phasing plan and allow urban development only in accord with a plan for full urban services (police, fire, parks, water, sewer, streets, and storm drainage) to which all providers are committed. Areas lacking full services are deemed outside the urban-service area and are unsuited for urban development regardless of Plan designation until services are assured, and shall not be identified in a phasing plan.
- 2.2-I9 Require that policy plans be prepared for new areas brought into the City for development, and revise existing policy plans to conform to General Plan policies and requirements for infrastructure financing mechanisms and open space.

Areas subject to policy plans are shown in Figure 2-2.

- 2.2-I10 Require new development to pay capital improvement fees for public facilities as necessary to maintain adequate resources and service levels.
- Adequate public facilities should be provided for new urban development, and new developments should bear their "fair share" cost of providing such facilities. In order to make reasonable provision for these new public facilities, the City of Vacaville has established public facilities fees which are applied to all new development. The fees are intended to provide for facilities that are required in addition to the normal onsite and offsite development improvements. Such fees are established to implement the policy of the General Plan and may include charges for connection to the water system, connection to the sanitary sewer system, parkland and improvements, school facilities, drainage improvements, and other capital improvements such as streets, bridges, traffic signals, and public buildings. The City Council may enact other public facilities fees if it finds that such fees are required to implement the policy of the General Plan.
- 2.2-I11 Establish a mechanism to monitor new development where infrastructure limits are being reached or exceeded so linkages with necessary improvements can be established and funded.

- 2.2-I12 Allow development to occur only in new outlying development areas with required policy plans as part of a coordinated plan for land uses, public facilities, and public services. Individual, piecemeal developments within these areas are not permitted.

2.3 SPECIAL AREA POLICIES

Planning Sector Policies

Within certain planning sectors specific policies apply to unique areas with special characteristics. (See Figure 1-1.) These clarify and refine citywide policies as applied to these areas.

East Sector

- 2.3-I1 Conventional housing may be approved for the 20 acre manufactured housing park designated east of Leisure Town Road and north of Elmira Road. This conventional housing may be built in place of some or all manufactured housing only if the Planning Commission and City Council make specific findings, based upon the project proposal, that the conventional housing would be as affordable as the manufactured housing types over both the short and long term.

To ensure continued affordability, one option that the City could pursue is the requirement for the developers who exercise the conventional housing option to enter into an affordable housing agreement with the City. This agreement could define income ranges for continued affordability and explain how it could be ensured.

- 2.3-I2 Require that the 38+ General Commercial site located in the south portion of the Orange Tree Business Park be the subject of a detailed traffic analysis and policy plan revision. The Policy Plan shall specify limits of use and intensity to insure compatibility with the adjacent Leisure Town and the Lemon Tree Mobile Home Park communities, and insure that the development will not reduce the level of service in any impacted intersection below LOS D.

- 2.3-I3 The 19+ acre site located at the northwest corner of Allison Drive and Elmira Road shall be included in the Allison Policy Plan.

Section 2.3

- 2.3-I4 Include specific standards for adequate physical and aesthetic separation of commercial and office uses from adjacent residential uses in the Nut Tree Business Park Policy Plan. The Policy Plan permits office, research, and development, business service and general commercial uses, excluding: drive-in uses, hotels and motels, recreational commercial uses, automobile service or repair, theaters, manufacturing uses, uses involving outside storage.
- 2.3-I17 The separator between residential and industrial uses may be reduced to less than 200 feet for those areas bordering the Maris Industrial Park. Specific standards for the separator shall be established in a master plan for development of the area. *<Modified by Resolution No. 1991-T-2 (GP-1-91)>.*

North Sector

- 2.3-I5 *<Deleted by Resolution No. 1991-T-2 (GP-1-91)>.*
- 2.3-I6 In the area between the Boulder Valley and North Vine Street Estates projects, immediately south of the future alignment of Vaca Valley Parkway, designate the two small valleys on the east and northeast side, outside of the 25 percent slope area as Residential Estates. Water service to and development of this property is entirely dependent upon the expansion of the Vine Street area water system, and dedication of the undevelopable hillside areas to the City for Urban Open Space.

Northeast Sector

- 2.3-I7 Conventional housing may be approved for the 20 acre manufactured housing park designated east of Leisure Town Road and north of Ackerley Road. This conventional housing may be built in place of some or all manufactured housing only if the Planning Commission and City Council make specific findings, based upon the project proposal, that the conventional housing would be as affordable as the manufactured housing types over both the short and long term.

To ensure continued affordability, one option that the City could pursue is the requirement for the developers who exercise the conventional housing option to enter into an affordable housing agreement with the City. This agreement could define income ranges for continued affordability and explain how it could be ensured.

Section 2.3

2.3-I8 Require that a policy plan for the Highway Commercial site north of Quinn Road, south of Ellsworth Road, and east of Mills Lane include the following requirements:

- o Direct access onto Ellsworth Road from the commercial area south of Ellsworth Road is prohibited.
- o Direct access onto Mills Lane from the commercial area north of Ellsworth Road is prohibited.
- o A landscaped or solid buffer shall be installed on the north side of the Highway Commercial site to protect adjoining residential uses, and uses incompatible with the adjoining residential area shall not be permitted.
- o Annexation and development shall be coordinated and not happen piecemeal.
- o There shall be a coordinated plan for the extension of public facilities (streets, sewer, water, drainage, etc.) and a coordinated circulation plan.

2.3-I9 Require that a policy plan for the residential area east of I-505, south of Midway Road and north of Kilkenny Canal include a site for a 20-acre manufactured housing site and a greenbelt buffer or golf course at least 500 feet wide immediately to the east of I-505 to provide an adequate noise and safety buffer for adjacent residential uses.

South Sector

2.3-I10 Conventional housing may be approved for the 20 acre manufactured housing park designated west of Vanden. This conventional housing may be built in place of some or all manufactured housing only if the Planning Commission and City Council make specific findings, based upon the project proposal, that the conventional housing would be as affordable as the manufactured housing types over both the short and long term.

To ensure continued affordability, one option that the City could pursue is the requirement for the developers who exercise the conventional housing option to enter into an affordable housing agreement with the City. This agreement could

Section 2.3

define income ranges for continued affordability and explain how it could be ensured.

- 2.3-I11 Require a master plan (P.U.D., Policy Plan or other document that can adequately address development standards and provision of urban services including roads, water, sewer and drainage facilities, and parks and schools) for the 122+ acres south of old Alamo Drive, north of the realigned Alamo Creek channel and west of Leisure Town Road. *<Modified by Resolution No. 1991-T-2 (GP-1-91)>*

This master plan should consider the future development of the "Vanden" Policy Plan area in determining the location of infrastructure.

- 2.3-I12 In the portion of the Vanden Policy Plan area south of Foxboro Parkway and west of Vanden Road, the minimum lot size shall be 10,000 square feet.

Southwest Sector

- 2.3-I13 Require a policy plan for development of the approximately 99-acre area south of I-80, west of Alamo Creek and east of the Pena Adobe park to be prepared to provide for residential and commercial uses, permanent open space of the hillsides above the water service line or on slopes of 25 percent or greater, and to provide for an area of approximately 20 acres of floodplain west of the California Drive extension as a stormwater detention basin. The Policy Plan shall provide for the transfer of residential density from the storm detention/flood overflow area to the developable portion of the site. The detention basin area may also be developed for limited recreation use as a playfield. The portion of this site above the water service line and/or on slopes of greater than 25 percent shall be designated as Open Space, with the remainder designated Low-Density Residential.

West Valleys South Sector

- 2.3-I14 Require that the policy plan for the Lower Lagoon Valley facilitate development of a business park of regional significance and "upper-end" housing by including the following requirements:
- o High standards of community design shall be established, addressing building design and landscaping, streetscape character and public amenities.

Section 2.3

- o Ridges and slopes of 25 percent and greater shall remain undeveloped in order to maintain agricultural grazing areas, protect the public health and safety and to provide for community separation and open space, except that a limited area of golf course development may be permitted.
- o Business Park and Highway Commercial development of the highest standard of quality, conforming to design criteria intended to protect view corridors, and the open space feel of the valley. Design standards shall be established for building size, material, and design, site coverage and placement, street design and landscaping, and public amenities.
- o A permanent view corridor will be established to protect the view of Lagoon Valley Lake and the hills which provide a backdrop for the lake.
- o On the valley floor, the sense of open space shall be preserved, and development shall be set back from I-80 and beyond a 100-foot landscaped buffer. Development shall not completely obstruct views of the surrounding hills.
- o Business Park and Commercial development shall be designed to accommodate employee-service commercial uses.
- o Development shall enhance the recreational potential of the area.
- o Residential development shall be limited to 730 units and shall be integrated with a golf course. There shall also be a recreation complex.
- o Detention of floodwater shall provide for all lost floodwater storage and incremental increases in runoff, and total retention shall reduce downstream flows during peak-storm conditions to not more than 90 percent of existing conditions.
- o A financing mechanism for all public facility improvements shall be established before development occurs.

Central Sector

- 2.3-I18 The second and final phase of the Spring Valley project shall not be developed until the Wykoff water system is adequately improved in accordance with the plans approved by the City. Ridges and slopes of 25 percent and greater shall remain undeveloped and designated as Urban Open Space in order to maintain agricultural grazing areas, protect the public health and safety and to provide for open space.

Other Special Study Areas

- 2.3-I15 The City Council may establish "Special Study Areas" where the resolution of circulation problems or land use issues will require detailed study and public review beyond the scope of the General Plan update process. Three special study areas are established in this General Plan and described below. Development of lands having an immediate and direct impact on these Special Study Areas shall not occur until a plan to mitigate the identified problems to an acceptable level has been adopted by the City Council.
- o **East Monte Vista at the Nut Tree.** The narrow right-of-way between I-80 and the Nut Tree building and the substandard freeway ramps and over-crossings in this area prevent adequate circulation capacity to allow full development of the area. Alternatives to be examined include realignment of East Monte Vista, redesign of the freeway ramps, and land use adjustments.
 - o **Harbison Drive at I-80.** Left turn movements from Harbison will result in an unacceptable traffic level of service at certain times. Alternatives to be studied include new or redesigned freeway interchanges, and improvement or redesign of roadways and intersections that impact those interchanges.
 - o **Orange Drive at Leisure Town Road.** Traffic volumes at this intersection will exceed roadway capacity even after significant roadway expansion and intersection improvements. The I-80/Leisure Town Road interchange is also an impacted site which is closely related to this intersection. Alternatives to be studied include reducing land use intensities, eliminating certain commercial sites and not extending Orange Drive east of Leisure Town Road.

Special Performance Option

- 2.3-I16 The City Council may establish a special performance option (SPO) as part of an amendment to the Land Use Element if the Council finds that there is substantial public benefit to the provision of an alternative land use for a specific area within the community. In adopting an SPO, the City Council shall incorporate conditions applicable to the alternative land use, may establish a maximum time frame for the development of the alternative land use and shall approve the SPO subject to a specific development plan. If the alternative land use is not developed within the established time frame, the approval of the alternative land use shall expire and the original land use designation for the property shall apply.

It is intended that the SPO policy be used on an infrequent basis where the provision of public facilities to adequately service the alternative land use can be demonstrated. Any SPO shall be found to be consistent with the policies of the City's General Plan, based upon specific development plans for the property involved.

2.4 LAND USE CLASSIFICATIONS

The land use categories on the General Plan Diagram are abbreviated from the land use classifications described below. Zoning regulations to be adopted or revised must be consistent with the General Plan and will contain detailed use regulations.

More than one zoning district may be consistent with a General Plan land use classification. For example, land intended for future urban use may retain agricultural zoning while under Williamson Act contract, and more than one unit type may be established within an area designated for Residential Estate with a density-range of 0.5 to 3 units per gross developable acre.

Land use classifications in policy plans may be more detailed than those on the General Plan; however, all development must be consistent with the policies of the General Plan.

The Implementation Chapter contains a specific guide for consistency of land use designations with zoning designations. This table, on page 11-2, should also be referred to in determining zoning consistency and land use intensity for the various land use categories.

Residential Land Use Classifications

The Plan includes nine residential categories, each establishing a different minimum and maximum number of units per gross developable area. The residential densities described below are given as a range of units per gross developable acre (site area less area occupied by nonresidential uses, area of slope at or over 25 percent, creekways, flood channels, hazardous lands, and areas above the water service elevation). The number of units permitted will be further modified by the zoning district, a policy plan and any applicable overlay district. Estimates of future population density are based on the mid-point of the residential density range and projections of an average household size of 2.6 persons per dwelling unit. (See Figure 2-1 [Major Ridges and Creeks] and Figure 9-3 [Flood Hazard].)

Existing neighborhoods include some residences built at densities outside the ranges specified here. The Plan does not imply that such development should be replaced or treated as nonconforming uses by the City's Zoning Ordinance. New development may be approved at densities above the minimum density listed in Table 2-2 only if there are amenities, an affordable housing component, or compensating public benefits to justify such a density.

The 25 percent density bonus required by State law for specified shares of affordable or lower income senior housing is in addition to the densities listed. (See Policy 2.5-I7, Housing Opportunity Areas). Greater bonuses may be granted for senior housing that meets criteria established in the City's Zoning Ordinance.

TABLE 2-2
RESIDENTIAL LAND USE

	Density Range (units/gross developable acre) ^a	Assumed Units at Plan Buildout ^b
Rural residential	0.1 - 0.4	60
Residential estate	0.5 - 3.0	2,300
Golf course residential community	1.0 - 2.0	730
Residential low density	3.1 - 5.0	22,014
Residential low-medium density	5.1 - 8.0	2,479
Manufactured housing park	6.0 - 10.0	1,503
Residential medium density	8.1 - 14.0	3,435
Residential high density	14.1 - 20.0	7,008
Residential urban high density	20.1 - 36.0	700
Total		40,229

Notes: ^aAssumes new construction occurs at mid-point of density range.

^bAssumes 25% Moderate Density and 20% High Density component in new standard development areas, 20% Moderate Density component in West Valleys, Rice/McMurtry areas.

HOUSING UNIT MIX

	Number of Units	Percent of Total Units
Single Family ^c	25,104	62.4%
Moderate Density ^d	7,417	18.4%
High Density ^e	7,708	19.2%

Notes: ^c"Single Family" consists of Rural Residential, Residential Estates, Gold Course Residential and Residential Low Density.

^d"Moderate Density" consists of Residential Low-Medium Density, Manufactured Housing and Residential Medium Density.

^e"Residential High Density", also referred to as "Apartment-type units," consists of Residential High Density and Residential Urban High Density.

TABLE 2-3
HOUSING UNITS BY SECTOR

Sector	Existing January 1, 1989	Additional Development ^a	Holding Capacity
Central	12,415	735	3,150
Northwest	2,931	832	3,763
North	2,332	2,850	5,182
Northeast	41	1,574	1,615
East	3,396	4,000	7,396
Southeast	5,603	2,759	8,362
Southwest	3,082	812	3,894
West Valley South	3	727	730
West Valley North	88	73 ^b	161
South	1,136	4,840	5,976
Total	21,027	19,202	40,229

Notes: ^aAdditional dwelling units are calculated from the midpoint of the residential density categories.

^bAssumes current County agricultural zoning for unincorporated area.

Guiding Policies

- 2.5-G1 Maintain the single-family home as the preponderant dwelling type and prevent the intrusion of incompatible uses into residential neighborhoods.
- 2.5-G2 Provide a citywide housing mix of approximately 60 percent single-family detached, 20 percent single-family with zero lot lines, duplexes, triplexes, mobile homes, and townhouses, and 20 percent garden apartments and condominiums. To achieve this approximate housing mix citywide, new development areas must contain a larger component of certain housing types, as specified in Table 2-2.
- 2.5-G3 Continue to restrict apartments to certain locations.
- See Figure 2-4.*
- 2.5-G4 Broaden the choice of type, size, and affordability of single-family homes.
- 2.5-G5 Encourage creative site design, and architectural quality and variety by a design approval process that provides for a variety of single-family houses and designs and/or multi-family designs.
- 2.5-G6 Provide for a transition between higher-density and lower-density housing and require buffers between residential and incompatible land uses.
- 2.5-G7 Ensure that new residential development shares the cost of providing services and amenities for Vacaville residents.
- 2.5-G8 Locate major residential areas with easy access to employment concentrations.

Implementing Policies

(See also Section 2.1, Community Form and Image, and Section 2.2, Growth Strategy.)

- 2.5-II Amend the Zoning Ordinance to establish residential densities within the ranges designated on the General Plan map based on the characteristics of each site and its surroundings and on General

Plan policies. Require that all development be subject to site development and design review.

There is no presumption that development at the high end of a prescribed density range will be approved or not approved, but the average density is expected to meet or exceed the low end of the range, unless there are significant site constraints.

- 2.5-I2 Establish residential design guidelines to encourage residential subdivisions that are sensitive to topography, limit use of mass grading, provide for functional and aesthetically pleasing neighborhoods, and a variety of housing sizes. Lot sizes and building bulk shall be a component of design guidelines.

The guidelines should include illustrations of good design and standards for building siting, landscaping, energy conservation, common areas and community facilities. A separate section should address the issue of infill development and the need to ensure compatibility with existing neighborhoods.

- 2.5-I3 In any development exceeding 400 units, require a mix of development types and/or densities, including a component of larger lots and homes (at least 10 percent of the total).

- 2.5-I4 Establish requirements for private and common open space and recreational amenities in other projects that do not have standard, single-family sized lots.

- 2.5-I5 Encourage high density housing in the Downtown core area on the upper-floors of mixed-use buildings and in mixed-use projects. Locations along arterial streets are preferred.

The intent of this policy is to allow residential use as a secondary rather than a primary downtown land use.

- 2.5-I6 Locate lower-density housing at the edge of the planned urban area to buffer rural residential from higher urban density housing.

- 2.5-I7 Establish regulations to encourage construction of affordable housing in Housing Opportunity Areas by allowing increases in density over the maximum otherwise permitted, consistent with State law. (See also Housing policy 7.1-I1)

Section 2.5

Eligible land use categories, criteria for determining allowable density increases, affordability requirements, application and review procedures, and other incentives required by State law should be defined in the Zoning Ordinance. Potential Housing Opportunity Area sites generally should be located on flat land with slopes less than 10 percent within the existing urban area so as not to create additional urban service demands at the periphery. Projects should be designed to be compatible with surrounding neighborhoods in terms of scale and character.

- 2.5-I8 Establish regulations requiring buffers between residential and agricultural areas and between residential areas and industrial parks. (See Figure 2-5.) The minimum separation shall be as follows:

Between residential and agricultural uses:	500 feet
--	----------

(Where the Greenbelt Buffer borders the Cypress Lakes Golf Course, the width shall be determined by the noise and safety buffer requirements for the Southern Pacific Rail Road. See also Policy 10.6-I14 in the Noise Element.)

Between residential, business and industrial park uses:	200 feet
---	----------

Standards for walls and landscaping and compatible uses permitted within the buffer area should be defined in the Zoning Ordinance and Policy Plans. (See Policy 2.3-I17 regarding the Maris Industrial Park.)

- 2.5-I9 Limit residential development in areas impacted by noise and potential hazards from Nut Tree Airport to uses identified in the Solano County Airport Land Use Commission Airport/Land Use Compatibility Plan and amended zoning regulation as required.

The intent of this policy is to encourage new offices to locate Downtown and in business parks or where they can provide a transition between retail commercial uses and adjacent residential neighborhoods.

- 2.7-I4 Allow supporting retail and business services within commercial office zones to facilitate office development.
- 2.7-I5 Require increased setbacks adjoining freeways and ensure that new developments do not appear to back up to freeways.

2.8 BUSINESS AND INDUSTRIAL PARK DEVELOPMENT

Industry has been the major employer in Vacaville since its founding. The existing firms produce a range of goods, from food products to manufactured housing and medical products. The land presently occupied by many of these firms should be adequate for their future needs; in fact, many industrial parks have sufficient land to accommodate significant expansion of existing operations. Overall, 1,510 acres are reserved for industrial and business parks. The distribution by planning sector is shown in Table 2-5.

The future of industrial and business parks in Vacaville should be one of change as well as growth. The trend toward light-industrial and research-and-development facilities and office business parks is likely to continue and should be encouraged. Whatever shape and course Vacaville's industrial sector takes in the future, the City has sufficient land to meet its future needs. It also can meet growing demand for regional office sites in a landscaped environment.

TABLE 2-5
BUSINESS AND INDUSTRIAL LAND USE BY SECTOR (ACRES)

Sector	January 1, 1989 Existing	Additional Development	Holding Capacity
Central	38.5	(38.5)	3.4
Northwest	0.0	0.0	0.0
North	9.0	(9.0)	0.0
Northeast	203.2	1,142.2	1,345.4
East	22.6	111.1	133.7
Southeast	23.6	(23.6)	0.0
Southwest	5.7	(5.7)	0.0
West Valley South	0.0	304.0	304.0
West Valley North	0.0	0.0	0.0
South	10.1	(10.1)	0.0
Total	312.7	1,537.8	1,786.5

Note: Includes Industrial Park and Business Park acreage. Existing acreage is land developed as of January 1, 1990.

becoming more involved in the planning, coordination and provision of such facilities (i.e., a new Cultural Center, child care programs). The General Plan establishes policy which facilitates the availability of these services, facilities and resources.

The General Plan supports the construction of a cultural center, with a performing arts facility and library in a central location at the southeast corner of Ulatis and Allison Drives. The City will continue to preserve and enhance historic resources through design review and historic preservation districts. Future discussion of historic resources may be found in Section 8.5, Historic and Archaeologic Resources.

Guiding Policies

- 5.2-G1 Encourage development of public and institutional uses, including, educational, cultural, health-care and day-care facilities in Vacaville. Day-care facilities provide services to children, seniors and handicapped individuals.
- 5.2-G2 Encourage participation by the private sector in funding public or nonprofit facilities and services, that will be used by Vacaville residents and jobholders.
- 5.2-G3 Preserve and enhance the City's historic resources.
- 5.2-G4 Design public buildings and facilities to maintain and improve the beauty of the Vacaville Planning Area.
- 5.2-G5 Design public buildings to fit into and complement their ultimate surroundings; buffer public buildings from their surroundings so as to shield unsightly areas from public view.
- 5.2-G6 Provide adequate landscaping for all public buildings and installations.

Implementing Policies

- 5.2-II Continue to plan for a cultural center with a performing arts facility and a library in a central location.

5.2-I2 Locate public facilities and private community facilities such as churches near residential areas on arterial or collector streets.

5.2-I3 Encourage designation of sites for religious assembly on development plans.

By inviting religious organizations to make their site needs known, the City can facilitate negotiation between potential users and developers during the early stages of project design.

5.2-I4 Encourage day-care facilities in residential areas if there is sufficient available space for outdoor activity, and traffic, parking and noise are mitigated. Determine need for and, where applicable, location of day-care facilities at the time a specific plan, tentative map or development plan is approved.

Also see Policy 4.6-I5 in Section 4.6, Parks and Recreation.

5.2-I5 Develop zoning designation(s) that will clearly delineate major institutions and public facilities and their use.

Such a designation will allow the Planning Commission and City Council to evaluate the appropriate reuse of a site if the public use is discontinued. It also will ensure compatibility with adjacent uses if the development standards at the periphery of a public or institutional use pertaining to setbacks and landscaping are to conform to the adjacent zoning district.

5.2-I6 Continue to provide historic preservation by delineating historic preservation districts and requiring design review of proposals affecting historic buildings.

See also Policy 8.5-I2.

5.3 SCHOOLS

Schools play a central role in the daily life of the City. New families contemplating a home in Vacaville look at the quality of local schools as part of their evaluation of whether to settle in town. Long-time residents are concerned about schools that are overcrowded due to rapid residential growth. And school children, the prime users of schools, require an environment that excites and stimulates learning.

Guiding Policies

- 6.1-G1 Strive to maintain traffic LOS C or better as the standard at all intersections. LOS C is the required standard for outlying areas not limited by existing development for right-of-way expansion.
- 6.1-G2 LOS D may be approved as an allowable standard by the City Council for infill areas or isolated situations where existing development or other practical considerations limit improvements.
- 6.1-G3 LOS E or LOS F is allowable only for infill areas or isolated situations subject to a public hearing and findings by the Planning Commission and City Council that:
- o There is no practical and feasible way to mitigate the lower level of service.
 - o The uses resulting in the lower level of service are of clear, overall public benefit.
- 6.1-G4 Establish and implement a uniform set of standards for the City's roadway network.

Implementing Policies

- 6.1-I1 Design roadway improvements and evaluate development proposals based on LOS standards prescribed in Policy 6.1-G1, 6.1-G2, 6.1-G3 (See also Policy 2.2-I6 and 2.2-I8 requiring development proposals to be denied if unacceptable traffic levels of service will occur.)
- 6.1-I2 Implement, to the extent feasible, Transportation Element improvements summarized in Table 6-1 and illustrated in Figure 6-2 prior to deterioration in levels of service below the stated standard.

Development approvals should require reasonable demonstration that traffic improvements necessary to serve the development without violating the standard will be in place in time to accommodate trips generated by the project.

Table 6-1 **RECOMMENDED ROADWAY IMPROVEMENTS**

ROADWAY	BETWEEN	IMPROVEMENT
Vaca Valley Parkway	west of Orchard Avenue and Browns Valley Parkway	Widen from two to four lanes (and new four lane arterial where it does not yet exist)
	Browns Valley Parkway and I-80	Widen from two to six lanes
Orange Drive	Nut Tree Road and Leisure Town Drive	Widen from two to four lanes
	Its current terminus and west of Willow Avenue	Four lane arterial
Ulatis Drive	Nut Tree Road and Leisure Town Road	Widen from two to four lanes
	Allison Drive and Nut Tree Road	Four lane arterial
Mason Street/Elmira Road	Davis Street and Leisure Town Road	Widen from four to six lanes
	East of Leisure Town Road	Widen for two to four lanes
Fry Road	East of Leisure town Road	Upgrade from two-lane collector to four-lane arterial
Cherry Glen Road	I-80 and California Drive	Widen from two to four lanes
Davis Street	Mason Street and Hume Way	Widen from two to four lanes
Eubanks Drive	Aldridge Road and Midway Road	Two lane arterial
Allison Drive	Monte Vista Avenue and Nut Tree Parkway	Six lane arterial
	Nut Tree Parkway and Elmira Road	Six lane arterial

Table 6-1 **RECOMMENDED ROADWAY IMPROVEMENTS**

ROADWAY	BETWEEN	IMPROVEMENT
Midway Road	Gibson Canyon Road and I-505; east of I-80	Upgrade from two-lane collector to two lane arterial
	I-505 and I-80	Widen from two to four lanes
Leisure Town Road	City Limits and I-80; Alamo Drive and City Limits	Widen from two to four lanes
	I-80 and Alamo Drive	Widen from two to six lanes
Peabody Road	Elmira Road and City Limits	Widen from four to six lanes
Nut Tree Parkway	Nut Tree Road and Allison Drive	Widen from two to four lanes
Alamo Drive	I-80 and Marshall Road	Widen from four to six lanes
Gibson Canyon Road	Vaca Valley Parkway and Deodara Avenue	Widen from two to four lanes
Depot Street	Mason Street and Monte Vista Avenue	Widen for additional capacity
Browns Valley Parkway	Allison Drive and north of McMurtery Lane	Widen from two to four lanes
E. Monte Vista Avenue	Browns Valley Parkway and Vaca Valley Parkway	Widen from two to four lanes
Allison Drive	Vaca Valley Parkway and E. Monte Vista Avenue	Widen from two to four lanes
	Vaca Valley Parkway and Aldridge Road	Widen from two to four lanes

Table 6-1 RECOMMENDED ROADWAY IMPROVEMENTS

ROADWAY	BETWEEN	IMPROVEMENT
Akerly Loope	Connecting Meridian, Leisure Town Road and Vaca Valley Parkway	Four lane arterial
Burton Avenue	Ulatis Drive and Nut Tree Road	Four lane arterial
Hume Way	Davis Street and Peabody Road	Four lane arterial
California Drive	Peabody Road and Marshall Road	Two lane arterial
	Marshall Road and Pleasants Valley Road	Four lane arterial
Various roadways in the southeast sector and Lagoon Valley sector	—	Two and four lanes

RESIDENTIAL

[Pattern]	Rural (0.1 - 0.4 units/acre)
[Pattern]	Estate (1 - 3 units/acre)
[Pattern]	Golf Course (1 - 2 units/acre)
[Pattern]	Low Density (3.1 - 5.0 units/acre)
[Pattern]	Low-Medium Density (5.1 - 8.0 units/acre)
[Pattern]	Medium Density (8.1 - 14 units/acre)
[Pattern]	High Density (14.1 - 20 units/acre)
[Pattern]	Urban High Density (20.1 - 36 units/acre)
[Pattern]	Manufactured Home Park (6 - 10 units/acre)

COMMERCIAL

[Pattern]	General
[Pattern]	Neighborhood
[Pattern]	Service
[Pattern]	Highway
[Pattern]	Commercial Office
[Pattern]	Professional Office Restriction
[Pattern]	Downtown

BUSINESS/INDUSTRIAL

[Pattern]	Business Park
[Pattern]	Industrial Park

OTHER

[Pattern]	P or (P*)
[Pattern]	E JH HS
[Pattern]	Public/Institutional - (*Waste Disposal)
[Pattern]	Schools - Existing: E - elementary; JH - junior high; HS - high school
[Pattern]	Proposed: e - elementary; jh - junior high; hs - high school
[Pattern]	Private Recreation
[Pattern]	Public Park
[Pattern]	Greenbelt Buffer
[Pattern]	Urban Open Space
[Pattern]	Agriculture/Open Space
[Pattern]	Community Separator Overlay
[Pattern]	Density Transfer Areas
[Pattern]	Transmission Lines
[Pattern]	Hazardous Lands - See Safety Element

CIRCULATION

[Pattern]	Freeway
[Pattern]	Major Arterial
[Pattern]	Minor Arterial
[Pattern]	Collector

BOUNDARIES

[Pattern]	City Limit (as of March, 1991)
[Pattern]	Planning Area

NOTES

1. Refer to Travis Airport Land Use Plan and Nut Tree Airport Land Use Plan for specific land use limitations.
2. Locations for proposed park and school sites are general; alternate locations in the same vicinity may be approved without amending the General Plan.
3. The precise limits of the Long Term Planning Area Boundary and the Community Separator Overlay between Vacaville and Dixon is preliminary pending review by the Cities of Vacaville and Dixon.
4. See the General Plan Policies document for additional information.

AMENDMENTS

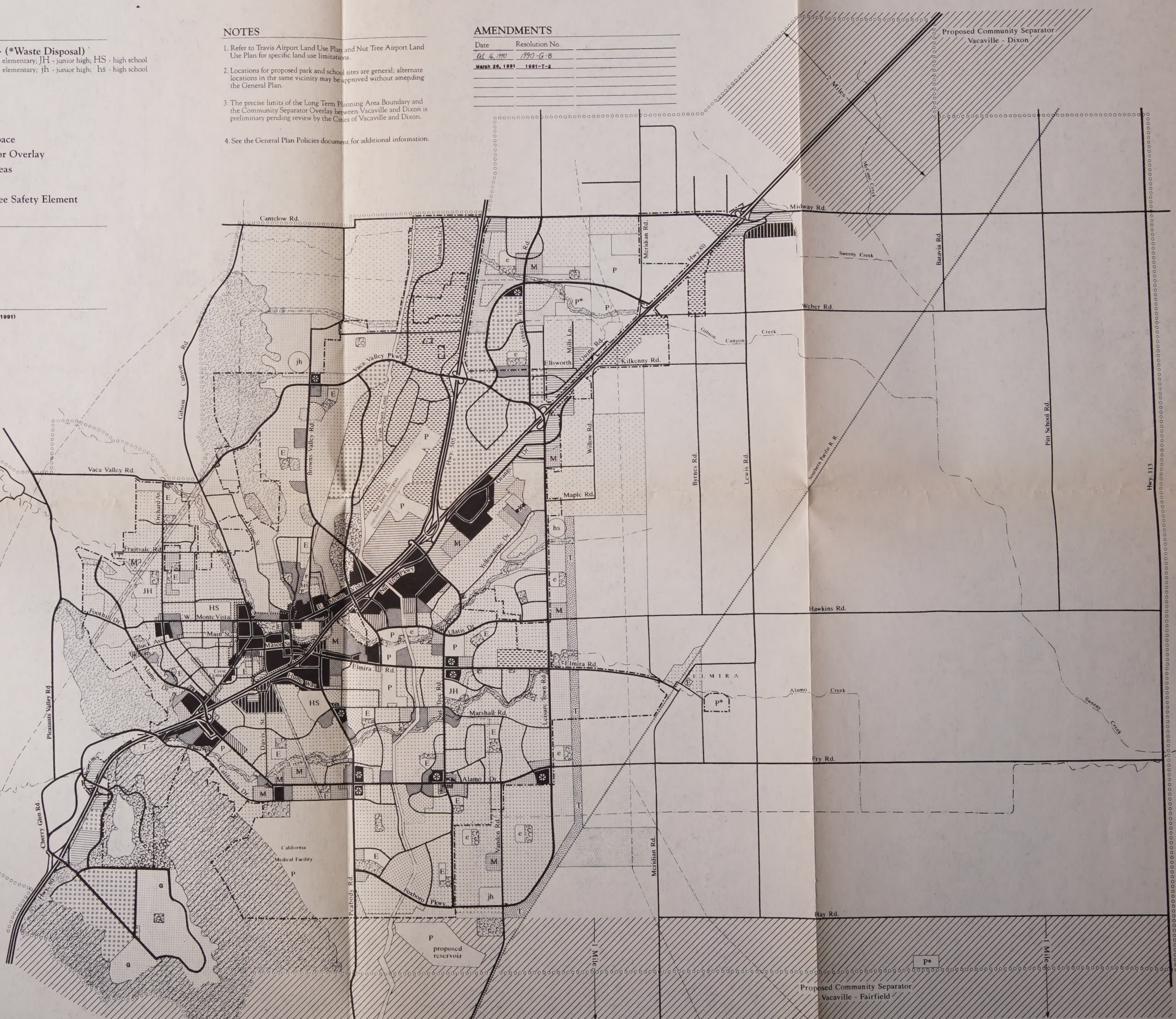
Date	Resolution No.
Oct 6, 1990	1990-G-8
March 28, 1991	1991-T-2



0 2000 4000 8000 Scale in Feet
One Mile

Vacaville General Plan Diagram

Adopted August 21, 1990



U.C. BERKELEY LIBRARIES



C124910805

